

Student Housing in a Post-Disaster Context: Controlling Mobility and Recreating Security

A thesis submitted in fulfilment of the requirements for the Degree of
Master of Arts in Sociology in the University of Canterbury

by Josiah Banbury

School of Language, Social and Political Sciences

University of Canterbury

2014

Table of Contents

Acknowledgments	5
Abstract.....	6
1. Introduction.....	7
Motivation for research	9
Aims of this research	11
The Canterbury Earthquakes	11
Thesis structure.....	12
2. Literature review	15
Introduction	15
Disaster studies.....	16
Theoretical influences on disaster research	16
Resilience.....	19
Vulnerability	21
Critical perspectives on post-disaster housing	23
Post-disaster housing	24
Housing literature	26
The meaning of housing.....	26
Housing and the construction of identity	27
Temporary housing	28
Residential mobility	29
Housing and health	30
Key concepts and theories	31
Capability	31
Mobility and motility	32
Social capital.....	34
Resourcefulness	36

Grey literature and government reports.....	36
Conclusion.....	37
3. Methodology	39
Introduction	39
Qualitative research approach	39
Constructivist-interpretive paradigm.....	40
Constructivist grounded theory	42
Participant selection	45
Ethical considerations.....	48
In-depth interviews.....	49
Rationale	49
Unstructured interviews	50
Process of interviews	51
Secondary data	53
Analytical methods.....	53
Coding.....	53
Mapping	55
Memos	57
Conclusion.....	57
4. Findings.....	59
Introduction	59
Mobility	59
Relocation	60
Tenancy agreements and EQC.....	66
Searching for Stability	74
Recreating security	78
Recreating security and recreating belonging.....	78
An unsuitable house.....	82

Loss	87
Loss of belongings	87
Loss of voice and marginalisation	91
Conclusion.....	97
5. Discussion.....	99
Introduction	99
Motility and housing insecurity.....	101
Support from social networks	103
Tenancy agreements and the EQC	106
Perception of neighbourhood, suburb and city	109
Producing security capital	111
Withdrawing from the rental market.....	113
Recreating security capital through resourcefulness.....	114
Conclusion.....	116
6. Conclusion	121
Introduction	121
Methodology and findings.....	121
Theoretical contribution	123
Research limitations	124
Potential further research.....	124
Policy and advocacy	125
Conclusion.....	126
Appendices.....	127
Appendix I: Poster	127
Appendix II: Consent form	128
Appendix III: Information sheet	129
References.....	131

Acknowledgments

I would like to thank Ruth McManus and Kate van Heugten for their supervision throughout this thesis. Your support, enthusiasm and encouragement kept me going through the slow phases. Thanks for the guidance and insight, but also for allowing me to consider new ways of thinking. It has been a privilege.

The sociology, human services and social work departments have also supported me during my years at UC.

Thanks to my parents Ross and Diane for your love and support.

Lastly, thanks to the participants who shared their experiences. I hope your housing is secure, I hope the ground beneath your feet remains stable, and I hope your voice is heard.

Abstract

This thesis examines how 18 University of Canterbury students based in Christchurch experienced housing insecurity during the three years after a series of major earthquakes from late 2010 and throughout 2011. I adopted a qualitative exploratory approach to gather students' accounts and examine their experiences which were analysed using constructivist grounded theory methods.

Three core categories were identified from the data: mobility, recreating security, and loss. Mobility included the effects of relocation and dislocation, as well as how the students searched for stability. Recreating security required a renewed sense of belonging and also addressed the need to feel physically safe. Lastly, loss included the loss of material possessions and also the loss of voice and political representation.

The theory that emerged from these findings is that the extent to which students were able to control their mobility largely explained their experiences of housing insecurity. When students experienced a loss of control over their mobility they effectively addressed this by being resourceful and drawing on existing forms of capital. This resourcefulness generated a new form of capital, here called security capital, which represents a conceptual contribution to existing debates on students' experiences of homelessness in a disaster context.

1. Introduction

One of the most pressing issues faced in Christchurch following the September 2010 and February 2011 Canterbury earthquakes was the shortage of housing. The loss of residential homes, particularly in the east of Christchurch, stretched the city's capacity and stories began to emerge from residents about a housing shortage.

The government at the time was a National Party led coalition, elected in 2007, then re-elected twice, in 2010 and again just before the completion of this research in September 2014. While this was a politically stable period of time for New Zealand, the government's centre-right approach was characterised by the gradual extension of neo-liberally orientated approaches and policies to housing, welfare, education and employment that emphasised individual responsibility, and the partial privatisation of government assets.

In terms of the government's response to the housing situation following the major earthquakes, the government preferred a market-based approach despite the exceptional circumstances. The response from the Earthquake Minister, Gerry Brownlee varied from denying the existence of a housing crisis, to minimising it. He was quoted as saying:

I think the situation is getting better. You could go anywhere in New Zealand and find people living in difficult circumstances for any number of reasons—we're doing everything we can to create opportunities for people to have good accommodation in Christchurch ... My difficulty is that while we're seeing these cases [people living in cars, tents and caravans], when we do look into them there are opportunities for people (Shuttleworth, 2012, para. 11).

The government's reluctance to provide residential housing assistance became apparent after the government had obtained extraordinary control over the earthquake recovery. Gerry Brownlee, who was the local Member of Parliament for Christchurch's Ilam electorate at the time, was appointed as the Christchurch Earthquake Minister and given executive powers. Those powers were provided through the Canterbury Earthquake Response and Recovery Bill 2010 following the September 2010 earthquake. The legislation stipulated that the Earthquake Minister could 'grant an exemption from, or modify, or extend any provision of

any enactment'¹ (New Zealand Government, 2010, p. 2, s. 6.4). Furthermore, following the February 2011 earthquake, the Canterbury Earthquake Recovery Authority (CERA) was established in March 2011 to oversee the city's recovery. In keeping with the Response and Recovery Bill created a few months before, CERA was allowed 'wide powers to relax, suspend or extend laws and regulations which would be used responsibly and for clearly defined purposes related to earthquake recovery' (Brownlee, 2011, para. 6). Despite being given these extraordinary powers, the Christchurch Earthquake Minister largely ignored the housing issues in Christchurch and instead focused on the needs of the business community.

Government funded emergency housing was provided during the immediate recovery phase from September 2010 to December 2011 (CERA, 2012c). The housing construction that occurred immediately following the initial major earthquakes suggested that the government's reaction would focus on making practical provisions for the basic needs of the Christchurch residents. However, the construction and provision of post-earthquake emergency housing from the government dissipated after December 2011. Throughout this period the demolition of the central city continued, and the repair and construction of buildings intensified (CERA, 2012c). While the reconstruction of the central city applied a top down, centralised approach, the provision of housing was largely left to the private sector (Hayward, 2013). Unfortunately, the market based rebuild has struggled to provide adequate housing and affordable rent for a number of reasons, such as the complex nature of insurance claims, the scale of the disaster, and the influx of new workers, all unfolding in a neo-liberal political environment which allowed rental prices to increase without restriction in the backdrop of a sluggish global economy.

The focus on business rather than housing was evident in how the ideas proposed by Christchurch residents were not included in the recovery plan of the central city. Ten weeks after the February 2011 earthquake the Christchurch City Council (CCC) launched the *Share an Idea* campaign which gathered suggestions from the public about the kind of city Christchurch residents wanted in the future (CCC, 2011). The outcome of the consultation process resulted in a draft central city recovery plan. The plan for the new central city included housing for those on low-incomes through a social housing model, which was to be integrated in pockets alongside private housing. Furthermore, affordable housing was also

¹ The statutes that could not be modified under the Canterbury Earthquake Response and Recovery Bill were: Bill of Rights 1688; Constitution Act 1986; Electoral Act 1993; Judicature Amendment Act 1972; New Zealand Bill of Rights Act 1990.

suggested for those on low-incomes who preferred homeownership, rather than renting. Social housing and affordable housing in the city centre were considered crucial for Christchurch's future because they would include the socially marginalised, help foster a sense of community, encourage younger people and families to live in the city, and help to stimulate a vibrant urban environment (CCC, 2011).

Despite the success of the Share an Idea campaign, which compiled 106,000 ideas, the draft plan of the central city was redesigned a few months later (CCC, 2011). The *Christchurch Central Recovery Plan* was released on 30 July 2012 by a newly created unit of CERA called the Christchurch Central Development Unit (CCDU). The CCDU was formed to provide leadership in the central city and liaise with the business community (Brownlee, 2012b). The reconfigured central city plan no longer included the social housing or affordable housing from the draft plan, instead, a demonstrative housing project was proposed on land that had in some cases been compulsory acquired (CERA, 2012a). The disappearance of social and affordable housing in the new blueprint signified the ideological future of Christchurch. The government would not become involved in the provision of housing to a meaningful degree; instead, they would attempt to rejuvenate Christchurch through a business-centric approach.

Motivation for research

When I first read the above quote from the Earthquake Recovery Minister I was aware that the claims by Brownlee contrasted with what I was witnessing in my neighbourhood and city. At the time I was living in Christchurch just to the east of the central city—or what was left of it. Despite having reasonable housing security at the time, I believed that my observations and understanding of the housing situation in Christchurch was more accurate than Brownlee's assertion. I was therefore sceptical about this claim from the government that 'we're doing everything we can to create opportunities for people to have good accommodation in Christchurch' (Shuttleworth, 2012, para. 11). My observations of the living conditions throughout the city, as well as reports from the media, suggested that housing insecurity was an issue for many Christchurch residents, and there seemed to be few options available for people whose housing had become precarious.

During 2012 and 2013 there continued to be conflicting messages from the government about the extent of the housing shortage, as well as what kind of housing assistance was needed in response to the earthquakes. For example, Brownlee suggested in June 2012 that rent prices were reasonable and their impacts could not be considered a crisis (Carville, 2012). However, by September 2012 Brownlee was prioritising resource consents to push forward temporary housing for rebuild workers migrating to the city (Brownlee, 2012a). The messages from earthquake recovery officials such as Brownlee were inconsistent and the policies indicated the government would be providing a neoliberal response to address the effects of the earthquakes. Residents who were already living in Christchurch would have their housing needs provided by the market, whereas the new arrivals that came to rebuild the central business district would be more likely to have their housing provided through governmental intervention. This example shows how the government's priorities were on the rebuild of the business community, rather than residential communities.

In the winter of 2012, Prime Minister John Key invited local residents to '[r]each out to us and we will give you some help' (Carville & Small, 2012, para. 4), however, as this thesis will go on to show, reaching out was not always possible and when the participants did so, the assistance that they received was residual at best. There was a gradual and obvious shift from collectivism towards individual responsibility, particularly after the initial recovery period of the first few months. From my own experience of living in Christchurch there was an awareness following the earthquakes that all people are susceptible to bad luck. This collective consciousness based on our shared experience encouraged empathy and understanding, however, over time the prevailing expectations of personal responsibility and individualism resurfaced. Because of this I was drawn towards investigating how people had managed their living arrangements while their city was in a state of flux; both physically and ideologically.

As the housing issue in Christchurch continued, the political response remained quiet. Because of this I wanted to investigate how people were experiencing housing problems and homelessness. As this research project began to take shape I narrowed the focus for pragmatic reasons. This Masters thesis allowed me a short timeframe of two years to explore and document housing issues in Christchurch. Consequently, the research aims focused on housing insecurity of students at the University of Canterbury.

Aims of this research

This research aimed to explore how housing insecurity has been experienced by University of Canterbury students following the Canterbury earthquakes. In order to achieve this aim, two objectives were defined at the beginning of the research: to investigate the challenges that the participants faced which made their housing insecure and to investigate how their housing issues and challenges had been negotiated. To explore these aims, four questions were posed: In what way did the participants' housing situation affect other aspects of their life? How did the participants attempt to overcome their housing issues? How did the participants situate their experience in relation to their wider social context? Did their experience of housing insecurity make the participants re-evaluate their values or world view in any way? These four research questions offered an initial framework for exploring housing insecurity. However, as the research progressed and the changes and challenges faced by the participants began to emerge from the data it became clear that housing insecurity was an ongoing process that was influenced by both time and movement, and articulated most obviously in the experience of moving house. As a result, two additional research questions materialised during the research: How did the participants' housing issues improve, and / or deteriorate over time? To what degree was control over mobility an important factor in individual agency?

To contextualise the aims of the research, the next section outlines the general context of the earthquakes in Canterbury and Christchurch.

The Canterbury Earthquakes

On the 4th September 2010 a magnitude 7.1 earthquake struck the Canterbury region in the South Island of New Zealand. Fortunately the earthquake occurred in the early morning and there were no immediate deaths, despite severe damage to property (Dorahy & Kannis-Dymand, 2012). However, on the 22nd February 2011 a magnitude 6.3 earthquake struck at 12.51pm which devastated the city of Christchurch. The earthquake cost the lives of 185 people, including 115 within the Canterbury Television building (New Zealand Police, 2012).

Extensive damage occurred throughout Christchurch, in particular the central city and the eastern suburbs, which experienced a higher degree of liquefaction. Roads, power, sewerage and water systems were rendered unusable for a period of time and landslides occurred on the Port Hills around the suburb of Sumner, a coastal suburb to the south east of Christchurch (Bannister & Gledhill, 2012). From September 2010 to September 2012, there were 4,169 earthquakes over 3.0 magnitude and 58 of those registered over 5.0 (GeoNet, 2014). The continual aftershocks compounded the stress and hampered the rebuilding of homes, buildings and amenities following the February earthquake.

Of the 190,000 properties in greater Christchurch, 7,860 were *red-zoned*, which means that land, or the buildings on the land, are deemed unsuitable for residents (CERA, 2012b). The loss of houses and buildings contributed to an estimated 70,000 residents leaving Christchurch soon after the earthquake, however, much of the population movement was temporary; many of those who moved away only did so for short periods of time (Crowley & Elliott, 2012). The ongoing movement of people who left and returned to the city, as well as residents within the city as their dwellings and workplaces were rezoned or red stickered, made it difficult to find accurate data on housing insecurity in Christchurch. This difficulty made it hard to quantify the impact of the earthquakes on housing insecurity, and it was this invisibility that potentially made it possible for the housing minister to claim that a housing crisis did not exist even though at the completion of this thesis, 7030 houses had been deemed unliveable and sold to the crown, and of them 5133 have been demolished (CERA, 2014a). Although there has been some temporary housing built by the government throughout the city and more is planned, a shortfall remains.

Thesis structure

The thesis has been organised into six chapters. This introductory chapter has presented the rationale behind the research. The aims and objectives of this research has also been discussed.

The second chapter overviews literature related to this research to highlight the key research, themes and theories from disaster studies and housing studies. This chapter shows the gap in existing knowledge about student housing in a post-disaster context.

The methodology chapter explains the overall research design and discusses the philosophical assumptions I have as a researcher. The reasons for taking a constructivist grounded theory approach are explained. Following this, the discussion of data collection and analytical methods are combined in one section because when a grounded theory approach is used the data collection and analysis proceed together and reflexively affect each other. I also outline ethical and methodological challenges that I encountered while undertaking the research.

The fourth chapter presents the findings of the research. The findings that emerged from the interviews are organised into three categories. The first is mobility which discusses how relocation left the students seeking stability. The second category shows the ways in which the participants recreated security. The term security in this section includes emotional security (belonging to a place) as well as physical security (reliable structure of the house). The last section of the findings chapter explores loss, which details how the loss of belongings impacted on the participants. In addition to material loss, the impact of losing political voice emerged as a key concern of the participants.

The fifth chapter is where I discuss my interpretations of the findings and I relate these back to existing sociological theories. I present my theory about how the participants' experiences of housing insecurity were influenced by motility—the capacity to be mobile (Kaufmann, 2002). Controlling one's mobility depends on an array of factors such as social networks, tenancy agreements and the perception of the city. The chapter then goes on to explain how the participants produced security capital. This aspect of the theory draws on a Bourdieusian interpretation of capital to show how limited motility is mitigated as the participants attempted to produce *security capital*. The development of security capital was realised through what MacKinnon and Derickson (2013) labelled resourcefulness.

In the sixth and final chapter I conclude by providing a brief overview of the research and discuss the academic contribution of the thesis. The research limitations and possible future research related to this project are reflected on, alongside policy suggestions.

2. Literature review

Introduction

The aim of this thesis is to explore students' post-quake experiences of housing insecurity. This chapter covers some of the dominant sociological themes from disaster and housing studies to identify the main currents of discussion that are relevant to this aim. As this involves a wide selection of literature, the review focuses on discussions, concepts and debates seen as pertinent to the participants' experiences of post-disaster housing insecurity. Dominant concepts, theoretical perspectives and existing international research related to this thesis are presented. New Zealand specific housing research reveals that while there is a longstanding interest in experiences of ontological security in relation to housing more generally, a gap exists in terms of understanding how people experience and negotiate the structural and ontological dimensions of housing insecurity in a post disaster context.

This chapter begins with an historical overview which maps out how the sociology of disasters landscape has covered four major turns; positivist, functionalist, constructivist, and critical. These four phases are best viewed as broad epistemological, ontological and methodological changes. The turns overlap one another and were influenced as much by the major disasters that occurred at specific times and places, as they were fashionable perspectives and methodologies found throughout the social sciences. While organising the discussion in terms of phases, it is important to note that it is difficult to delineate the turn from a functionalist to a constructivist phase because a functionalist interpretation has underpinned disaster research for decades, despite pockets of constructivist thought emerging from the 1960s. The four phases were also shaped by the intellectual, social, political and economic contexts within which they occurred.

This chapter then goes on to consider the concepts that dominate social science discussions as researchers seek to understand the effects of disasters and the experiences of survivors. Resilience and vulnerability are two concepts that came to dominate disaster studies, before then becoming viewed as problematic by critical theorists. While remaining popular, both concepts have been critiqued for their inability to fully account for the effect of power inequalities and political marginalisation in post-disaster housing insecurity.

An overview of the literature on housing in a post-disaster context is then presented. The literature shows how existing inequalities, such as class or race, become reinforced after a disaster. Neoliberal concepts in particular are shown to influence post-disaster responses in housing and education in downtown New Orleans following Hurricane Katrina.

Moving on from disasters, the social scientific research on housing in New Zealand has come from a variety of theoretical perspectives and has analysed many forms of housing. The meanings that are attached to housing are covered, for example, the concept of ontological security and how it relates to housing. The ways in which housing defines and shapes our identity has also been explored.

Other literature on housing includes temporary housing and residential mobility. Economic and life stages are two drivers of housing relocation; both influence how and why people move from one house to the next. Lastly, the research from New Zealand that shows the link between housing and health is presented.

Capability, motility, social capital and resourcefulness are the four key concepts that are drawn upon in the resulting theory of this research. The four theories are outlined in this chapter to clarify how I have defined them and why they are useful for explaining the students' housing insecurity. This chapter concludes with a brief summary of the grey literature and government reports related to the Christchurch earthquakes.

Disaster studies

Theoretical influences on disaster research

Sociological research into disasters has been shaped by four broad theoretical perspectives: positivist, functionalist, constructivist, and critical. These theoretical perspectives were influenced by the political, historical and economic environments of their time. Beginning with a positivist approach, disaster studies soon became influenced by structural functionalism, and that perspective remains influential today because of its applicability to governments and policy. Constructivist and critical approaches have been more recent—the latter became very influential after Hurricane Katrina in 2005.

Early sociological research into disasters occurred after WWII and throughout the early cold war period. The research was guided by realist assumptions and focused on the responses of individuals and groups, both during and immediately after disasters. Tierney (2007) highlighted how post-disaster research through the 1950s and 1960s was politically influenced because funding was provided by the United States Government and results obtained were interpreted as being useful to predict the public's responses to possible nuclear attacks. Because of the orientation towards assessing public responses, post-disaster research was regarded as being more practical than theoretical. The research designs were underpinned by (post)positivist assumptions. According to Fritz and Marks the researchers sought to uncover common responses to stressful situations and 'every attempt was made to utilize sound scientific procedures' (Fritz & Marks, 1954, p. 27).

Functionalism was an influential theoretical framework used in disaster studies throughout the second half of the 20th Century. Charles Fritz was a leading disaster researcher who popularised a functionalist approach. Fritz defined a disaster as an event where the 'social structure is disrupted and the fulfilment of all or some of the essential functions of the society is prevented' (Fritz, 1961, p. 655). The same theoretical framing remained popular for many decades, for example, Kreps suggested a similar definition by stating that a disaster is when 'a society or one of its subdivisions undergoes physical harm and social disruption, such that all or some essential functions of the society or subdivision are impaired' (Kreps, 1995, p. 256). Despite the dominance of a functionalist approach through the years a constructivist approach was drawn upon by some disaster researchers. For example, following the 1992 Hurricane Andrew in Florida and the 1994 Northridge Earthquake in Los Angeles (see Bolin & Stanford, 1998a; Peacock et al., 1997).

Resiliency and vulnerability were two concepts that were applied liberally to Hurricane Andrew and the Northridge Earthquake and those concepts were considered in relation to the social, cultural and economic context that the disasters occurred in. Thus, the functionalism of the past incorporated a constructivist approach and attention was focused on the economic, political and social structures to examine how disasters were socially constructed. Ethnicity, gender and class were the three primary lenses through which vulnerability was explored (Bolin & Stanford, 1998). These intersecting inequalities were also found in the work of Peacock et al. (1997).

While constructivist investigations of disasters became more common in the wake of the Hurricane Andrew and the Northridge Earthquake, the shift away from a functionalist perspective had already begun in the 1960s.

Tierney (2007) claimed that the founding of the Disaster Research Centre (DRC) at Ohio University in 1963 altered the focus of disaster research. Symbolic interactionism, organisational behaviour and collective behaviour began to emerge as influential sociological schools of thought. The DRC allowed for constructivist perspectives to move into disaster research and disasters were acknowledged as socially constructed (Tierney, 2007). An early example of a constructivist approach was Spector and Kitsuse's (1977) exploration into how floods can be considered the result of human actions. Although a constructivist approach to disasters was fashionable within the DRC, much of this research was funded through government channels, consequently, the outcomes of this research often focused on policy recommendations, technical management practices and organisational responses (Bolin & Stanford, 1998a). Despite the constructivist approach to disasters from some sociologists throughout the 1990s (Fothergill, 1996; Morrow & Enarson, 1996), the sub-field of disaster studies did not follow other intellectual developments in sociology; specifically, post-structural and critical theories remained largely absent from disaster sociology literature (Bolin & Stanford, 1998a).

Following the 2005 Hurricane Katrina in New Orleans, a notable turn in disaster sociology has been the emergence of a critical perspective. During the middle of the 2000s a number of intersecting events led to a critical analysis of the Katrina response: the Iraq and Afghanistan Wars; the neoliberal Bush administration; questionable laws in the shadow of 9/11 such as the Patriot Act; and the continued dominance of neoliberalism (Johnson, 2011a). These issues, as well as a woefully inadequate federal response to Katrina, contributed to the popularity of a critical approach as researchers shed light on the Hurricane Katrina disaster. However, despite the emergence of a critical approach, the sheer volume of literature emanating from Hurricane Katrina has ensured that a functionalist perspective continued to be well represented; for example, the work of Aldrich (2012) and Gill (2007).

The historical overview of disaster literature presented offers a broad insight into how disaster research has evolved over time. The four phases were positivist, functionalist, constructivist and critical. These methodological and ontological frameworks have come in

and out of fashion due to practical constraints such as funding, but also wider social, economic and political influences. Currently a functionalist approach to disaster studies remains popular throughout the various strains of disaster studies; this is in part driven by the marketisation of academic institutions and their push to create knowledge that is applicable to the real world. However, the constructivist and critical approaches that have emerged since the 1960s, and become popularised in the wake of the heavily researched Hurricane Katrina in 2005, are more relevant to this piece of sociological research.

The literature review now moves on from a broad historical overview of theoretical frameworks to consider some of the main concepts from disaster research and housing studies which are relevant to this thesis.

Resilience

Resilience has been, and remains, a popular concept in various academic disciplines to explain how people adapt to and overcome disasters. The concept has its roots in physics where it was used to describe how some materials possess the ability to bounce back when stressed (Norris et al., 2008). Resilience was further theorised in the discipline of ecology through the work of Holling (1973) who incorporated the concept into a systems theory perspective. Following this, resilience was expanded on within psychology as a positive trait in people who had experienced severe adversity or were at risk (Egeland et al., 1993). Despite emerging from a functionalist perspective and becoming popular in the academic field of psychology, resilience has been applied to disaster environments by considering the social context of individuals and communities.

The concept has been used within a systems theory approach to show how people become resilient in a post-disaster context. Greene and Greene (2009) considered the effects of micro and macro systems on the individual's ability to overcome challenges. Manyena (2006) agreed that multiple influences can determine resilience, however, he highlighted the conceptual problems with the term. For Manyena, resilience is useful and should move beyond functionalist assumptions so it can be used more constructively to help minimise vulnerability.

In contrast to focusing on the individual, Norris et al. (2008) applied the concept to communities and concluded that a number of capacities were required for a community to be resilient. These include reducing resource inequalities, strengthening social support, ensuring institutional linkages exist, and planning for those who are unprepared. In order for these capacities to develop in a post-disaster environment communication, empowerment, reliable information, and flexibility are all required.

Reich (2006) defined resilience in the aftermath of disaster as a capacity that relates to three principles; control, coherence and connectedness. Control refers to how an individual must have a degree of autonomy in their recovery. Coherence describes the need to maintain as much structure and order as is possible, and connectedness determines the degree of inclusion. These reinterpretations of resilience can be defined as *socio-ecological* because they consider how disturbances and the subsequent re-organisation occur within complex systems; therefore the idea of adaptation remains, however, there is an acknowledgement of transformation (Cretney, 2014).

The concept of resilience was applied to post-earthquake Christchurch by Wilson (2013) who considered the links between social memory and resilience. Social memory refers to the combined knowledge, skills and experiences that existed within a community. By adding the concept of social memory, resilience is made both collective and situational because a community's experience of a disaster is shaped by its past. Likewise, a community's future (re)development and ability to adapt depends on its current status and its past. This way of thinking about resilience opens the concept out into a wider social context and highlights how time and place affect a group's ability to overcome adversity.

The literature on resilience also considers international responses to disasters. Bankoff (2001; 2007) noted that coping practices and strategies which are localised are often better because they have worked within a given context before the disaster. Localised practices and strategies are usually more effective, as well as more empowering, at both individual and community levels.

Edwards (2013) also highlighted the importance of local knowledge and why it is necessary for developing resilience in the wake of a disaster. For people and communities to be resilient Edwards claimed that families, individuals, local government, businesses, schools, non-profit organisations and faith based communities must all work together. This frames resiliency as

an outcome of networks, however, the socio-ecological perspective shifts the definition of resiliency back towards functionalism as people and communities attempt to create a 'new normal' (Edwards, 2013, p. 44). From a sociological perspective, the concept of resilience alongside a functionalist approach is theoretically problematic because there is a tendency for resilience to be overly focused on adaptive qualities. In response to this, theorists have challenged the concept of resilience.

A critical lens has been applied to resilience from throughout the social sciences, as well as disaster studies (Welsh, 2014). Norris et al. (2008) suggested that the reason why resilience is problematic is in its origins. Since the term is rooted in physical properties and laws it is difficult for social scientists to disassociate resilience from its original scientific and ecological meaning. Consequently, the ontological assumption that is attached to resilience steers it towards a rational analysis. This is why the term resilience is a powerful tool for governments in post-disaster contexts (Welsh, 2014). Expanding on this, Walsh suggested resilience has aided a post-political epistemology which assumes a degree of normality, thereby helping to preserve the system and prevent meaningful change.

Walker and Cooper (2011) explained how resilience has been used by global institutions, such as the International Monetary Fund and the World Bank, as a strategy for coping with economic crises. Thus, resilience has developed into a governance approach used on individuals, communities and nations so they become responsible for transforming themselves and becoming resistant to shocks (Welsh, 2014). Hayward (2013) critiqued the use of resilience within a governance approach following the Christchurch earthquakes. She highlighted how the centralised response to the earthquakes have been used to justify quick top-down decisions at the cost of democratic processes and ideals. Furthermore, Hayward suggested that if people are assumed to be resilient when they are bereft of political voice, or socially marginalised, then the resilience label can be disempowering. These critical perspectives have shown how resilience can be used to control people and disempower them.

Vulnerability

The concept of vulnerability has considered how social structures and systems negatively impact individuals and communities. Bolin and Stanford (1998a) noted that vulnerability can

be used in relation to the physical environment, groups of people or social systems. They explained how disaster researchers have incorporated existing social and economic positions into an analysis of vulnerability to consider how pre-existing inequalities can affect people's experiences during and after disasters. For example, the definition put forward by Blaikie et al. (2004) incorporated existing capabilities: 'the characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard' (Blaikie et al. 2004, p. 11).

While each definition of vulnerability focuses on different aspects, a common theme is that vulnerability is context-specific and difficult to prepare for. Bankoff (2007) for instance explained that vulnerability is contextual and related to specific political, social and economic practices. The importance of the socio-economic environment was highlighted by McEntire who claimed that vulnerability is often defined as a 'liability' or 'limited capability' (McEntire 2012, p. 207). Expanding on these terms, a number of examples were listed that could expose people to risk and possibly prevent people from being resilient; physical, social, economic and demographic factors all contribute to possible risk. However, McEntire acknowledged that too many variables exist to create robust policies based solely on the concept of vulnerability. This echoed Bankoff's (2007) caution against universality.

According to Oliver-Smith (2004) the concept of vulnerability is useful within an ecological systems approach so that the relationship between people, disasters, environment and politics can be viewed. The complex nature of vulnerability exposes many influences, in particular how individuals and organisations affect each other. In a similar fashion, Paton et al. (2000) found vulnerability to be useful within the theory of risk and resilience. They showed that understanding vulnerability can be useful for building personal and institutional resilience.

The literature on vulnerability shows how the concept can be limited in its usefulness if it is used inappropriately. As a result, the critical theorising of vulnerability shares similarities to the critiques of resilience. There is a tendency for resilience to overemphasise the individual, minimise structural constraints, and accentuate positive outcomes. Additionally, resilience can be too limited to the psychological strengths of the individual and may ignore structural limitations. In contrast, vulnerability can minimise agency and therefore act as a disempowering concept. For example, the term vulnerability, like resilience, can carry negative connotations because of its tendency to label people, rather than empower them

(Birkman, 2006; McEntire, 2012; Oliver-Smith, 2004; Paton et al., 2000). Bankoff (2001) noted that vulnerability as a concept can be ethnocentric, subjugating and disempowering if it is not used cautiously. Being aware of the problems associated with vulnerability is relevant for my research as it illuminates the reflexivity required if the concept is drawn upon. To ensure that both resilience and vulnerability are understood and applied appropriately, a situational and cultural awareness is crucial.

Critical perspectives on post-disaster housing

Hurricane Katrina marked a turn in sociological disaster research. The use of a critical approach to analyse the disaster was explored in the edited text *The neoliberal deluge: Hurricane Katrina, late capitalism, and the remaking of New Orleans* (Johnson, 2011). Collectively, the authors investigated how a neoliberal ideology caused, shaped and perpetuated the disaster. Themes of governance (Russill & Lavin, 2011), urbanity (Arena, 2011), planning (Allen, 2011) and inequality (Trujillo-Pagan, 2011) highlight how late capitalism, rather than the hurricane itself, was responsible for much of the misery, destruction and death following the earthquake.

Another example of a critical perspective is Reid's (2011) research on Hurricane Katrina. The study investigated how social inequalities—race, gender and class—intersected with the existing neoliberal political environment. Reid drew on feminist theory and critical theory to explore the experiences of displaced New Orleans residents. Reid found that housing relief policies excluded already vulnerable populations from accessing resources. Furthermore, the longer term rebuilding phase resulted in limited employment opportunities which compounded the housing exclusion. The research concluded that men were hesitant to draw on close friends and family for support, whereas women utilised close networks to overcome their challenges. Reid's study offered valuable insights for this research because of the methods used; in-depth semi-structured interviews of Katrina survivors were carried out.

Other literature focused exclusively on the intersection of race and housing post-Katrina (Arena, 2011; 2012). Arena explained how the public housing in the affected area of New Orleans was demolished, however, this was not in response to the disaster, instead, there had already been a call for a removal of the public housing units by interested stakeholders before

the hurricane. Arena shows how activists were unable to prevent the implementation of a public private partnership model following the disaster. The findings explained that the limitations of the post-disaster housing strategies in New Orleans were shaped by existing policy and political ideology, and challenging structural influences is difficult. In terms of post-disaster housing strategy in Christchurch, the privatised recovery of housing stock in Christchurch appears to echo the push for a market recovery under Bush, then Obama. Arena (2011) suggested that identity politics—in particular the divided voice between whites and blacks—denied what could have been a strong and unified class based movement and, consequently, the voice of the marginalised was silenced further.

The literature on housing in a post-disaster context, and the texts which draw on a critical approach, have focused on structural influences in response to disasters, particularly through policy analysis. This offers insight into how housing problems can develop through macro-institutions and impact the agency of individuals.

Post-disaster housing

Sociological research specifically focusing on post-disaster housing emerged through the University of Delaware Disaster Research Center (DRC). Pioneering disaster sociologist Enrico Quarantelli released a number of papers, reports and publications related to housing (Quarantelli, 1982; 1982a; 1991). During this period he defined the four phases of housing recovery; emergency sheltering, temporary sheltering, temporary housing, permanent housing (Quarantelli, 1982; 1982a). The first two phases of sheltering were short in duration, however, it was not uncommon for the latter two housing phases to last for years.

Wells and McCotter (1978) highlighted the need for permanent buildings to be built as soon as possible after a disaster, rather than allowing long-term temporary housing. They justified the need for permanent housing because temporary shelter soon became the cause of stress. Bolin (1985) provided a contrasting view by suggesting that immediate temporary housing should be the primary concern because those who live with friends and families are susceptible to stress. The differing views show the problems faced post-disaster. If the focus is on short-term housing then the result could be long-term problems.

The need for a people-centred housing recovery was suggested by Maly and Shiozaki (2012). They found that in the wake of the 1995 Hanshin-Awaji Earthquake in Kobe Japan the two key problems were the ‘single-track approach’ to temporary housing from the government and the lack of support or compensation for existing homeowners (Maly & Shiozaki, 2012, p. 56). Those who needed housing support found their voices marginalised which left them disempowered and unable to participate in decision making. Policy suggestions included ensuring that temporary housing does not become long term housing and making funds available for privately owned housing to be repaired if needed.

Literature on post disaster housing policy has also considered pre-existing inequalities (Miller, 2012; Nigg et al., 2006). These texts gave insight into how structural responses can compound the effects of a disaster by focusing on how the pre-existing inequalities faced by many New Orleans residents intersected with the aftermath of the disaster. Similarly, Whitehall and Johnson (2011) critiqued the neoliberal structure post-Katrina by questioning the discursive effect of the refugee label which was applied to those who became homeless. In doing so, the assumption of citizenship—protection from the state—was seen to be problematic because of the hegemony of individual responsibility, at the expense of collective responsibility. Consequently, the economic system normalised insecurity and perpetuated marginalisation.

Research on people living in temporary housing after disasters offered insight into survivors’ lived experiences. Yelvington (1997) applied conflict theory to investigate how people coped while living in a temporary tent city in the wake of Hurricane Andrew in South Florida. The research and analysis included interviewing and spending time with the participants to gain an in-depth understanding of their experience living in their temporary shelter. Yelvington’s (1997) findings challenged the functionalist assumption that people will recreate integrated communities, instead, those living in tent city found integration and adjustment difficult as they negotiated unfamiliar ethnic, gender and class issues. These problematic interactions were considered to be the result of external pressures and out of the control of the survivors—such as not choosing where they slept. Other notable problems were day to day stressors, such as a loss of privacy and unpalatable food.

Post-disaster housing literature also considers the effects of displacement and relocation. The experience of relocating after an earthquake has highlighted the challenges associated with

living in unsuitable buildings or temporary shelters. Erikson's (1976) sociological investigation into how the survivors of Buffalo Creek were affected by their relocation showed the long lasting effects of trauma and dislocation. The displacement that the residents experienced was as much the result of losing neighbourhood connections, as it was the loss of material structures. Despite trailer homes being provided, the social dislocation of individuals and families remained, which negatively impacted psychological well-being. Erikson weaved the narratives of his participants into his analysis to show the effects of forced relocation and why the loss of community is difficult to recreate following a disaster.

Mileti and Passerini (1996) argued that post-disaster relocation is undesirable because of the place attachment that existed prior to a disaster influences people's decision to stay, or return. Furthermore, the perception of risk shaped people's decisions to remain living where they had lived before, rather than move to another place where they would lose their sense of belonging. Similarly, while investigating the 1970 Yungay Peru earthquake, Oliver-Smith (1982) found survivors to be resistant to relocating because moving would create additional stress, such as a loss of cultural identity and loss of socio-economic networks, which would compound the effects of the disaster.

Housing literature

The meaning of housing

Dupuis and Thorns (1998) considered the meaning of home within a New Zealand context by furthering the concept of ontological security. Ontological security is the continuity of identity which is fostered through material and social environments (Giddens, 1991). A home provides ontological security because it is the physical space in which people perform their daily routines, a home provides privacy from an otherwise intrusive world, and a home is one of the key sites through which people construct their identity (Dupuis & Thorns, 1998). The work of (Saunders, 1989; 1990) also considered the ways in which housing provides more than shelter. His use of survey data in three English towns showed how the meaning ascribed to housing by home owners differs from that of tenants. Saunders claimed that home ownership is more likely to foster a sense of ontological security in comparison to those who are renting.

The idea that homeownership and ontological security reinforce each other is questioned in a study by Hiscock et al. (2001). Through in-depth interviews in the West of Scotland they found that both owner occupied housing and rented housing could provide ontological security, depending on a number of factors. Home ownership allowed for more autonomy and a better location, however, homeowners also lived with possibility that their house may get repossessed if they could not keep up with mortgage payments. While renting through social housing was less prestigious, the value of prestige was questioned by some participants and social housing could be seen as providing as much long-term stability as homeownership.

Forrest and Murie (1990) found tenants in the United Kingdom were less concerned about their ontological security than they were with the length of their tenure and the physical features of the housing. The reason for these differing opinions on how ontological security relates to housing is perhaps best explained by Dupuis and Thorns (1998) who highlighted how the meaning of home is contextual and provided New Zealand's infatuation with home ownership and property as an example.

Winstanley (2000) differentiated between home and house by drawing on the work of Game and Metcalfe (1996). Home is an evocative term that can include multiple meanings beyond the physical structure, whereas house refers to the material building itself. Although I consider this discursive differentiation between home and house to be useful, during the interviews I found that the participants interchanged the terms without distinction. For this reason I too use both home and house interchangeably throughout this thesis.

Housing and the construction of identity

The literature on how housing impacts on the construction of identity has drawn upon feminist perspectives and theories. For example, Winstanley (2000) explored how women experience housing and the home based on heteronormative relationships. She found that although historically gendered norms did affect women's identity in the home, there was space for challenging the gendered physical environment and divisions of labour.

How the interior of housing relates to identity was explained by Shaw and Brookes (1998) who noted the relationship between advertising, housing and gender. By analysing advertisements in the Home and Building magazine from 1936 to 1970 they highlight how

gender is discursively constructed in the home. The physical attributes of the inside of houses are described in the magazine with feminised language designed to coerce the reader into altering their internal fittings and furnishing to fit a gendered ideal. The post-war nuclear family responsibilities of women gradually dissipated over time. Shaw and Brookes' article offers insight into New Zealand's housing history and critically analyses how one's built environment constructs identities.

Another way that identity, consumption and housing has been conceptualised is through do-it-yourself home improvement (DIY). Mackay (2011) interviewed Christchurch residents to understand how they constructed place, both physically and socially, through the maintenance of their homes. The findings suggested a continued gender divide in DIY jobs; male responsibilities were outside the home and internal decorating was a team effort. Furthermore, the reasons given for DIY were for economical, aesthetic and functional improvements. Of particular interest to this research are the latter two. Aesthetic potential was explained as improving the symbolic value which constructs the owner's identity. Functional improvements were often the result of the changing family dynamics throughout life, such as children leaving home. Mackay also considered structural influences by suggesting that the gendered norms of housing maintenance had become embedded in New Zealand culture during the post-World War II era, thus explaining how historical socialisation shapes the formation of identities, which are also reinforced through relationships with people's built environments.

Temporary housing

The research by Severinsen (2010) into the experiences of people living in campgrounds throughout the North Island of New Zealand focused on their housing pathways. A housing pathways approach to research offers a postmodern framework which considers the decisions people make based on their preferred form of housing and their situation based on structures and social processes (Clapham, 2002).

Severinsen and Howden-Chapman (2013) considered the policy implications on campground residents in New Zealand. They use the concept of social exclusion to explain how the policy landscape shapes people's housing. Political framing is noted as being a major reason why

people living in campgrounds feel marginalised. The social exclusion contributed to an ongoing conflict that the residents experienced with campground owners and council officials.

Residential mobility

Smith and King (2012) claimed that the social science literature on residential mobility has increased markedly over the past two decades, both in the discipline of geography as well as other academic fields. Life course has been a dominant theoretical framework used to understand how families move over time (Clark & Davies Withers, 2007), or to focus more closely on how residential movement is shaped by personal economic changes over one's lifetime (Geist & McManus, 2008). Much of the more recent residential mobility literature was influenced by Rossi (1955) who researched the movement of families. Rossi showed moving residence was shaped by life changes such as school, work, having children, decreasing family size and old age.

Other authors point toward economic resources as a reason for residential mobility (Brasington, 2014). Similarly, Kim (2014) highlighted the economic environment by considering how policy decisions at a macro level create a profit motive, and in turn influence housing mobility. These examples from Brasington and Kim show how mobility can be viewed through an economic lens. Their findings also suggested that having access to employment opportunities is a factor.

Economic rationality has also been used to explain residential mobility by considering the capital gains that homeowners make over time. Smith and Thorns (1980) explained how housing can be an exchange good. Since New Zealand does not have a meaningful capital gains tax, housing becomes a commodity and trading up from one house to the next is both an investment, and a cause of relocation. To illustrate this process they used the term 'housing career' (Smith and Thorns, 1980, p. 4) because the income generated is not dissimilar to that from an occupational career. Hamnett (1999) claimed that purchasing housing and selling later for a profit is a common strategy of homeowners. This can result in housing mobility, however, in many instances—South East of England for example—capital gains is less of an

influence on shifting residence compared with other influences such as employment opportunities, preferred location or a better house.

Winstanley et al. (2002) used an ontological narrative framework to understand how Christchurch residents moved residence over time. Their findings showed how mobility decisions can be influenced by socio-cultural norms. As families downsize, so too can the family home. However, there are also reasons for not moving, particularly when a house suits a lifestyle or identity. Winstanley et al., (2002) provided an example of an older couple who downsized and moved into the central city. They enjoyed the urban lifestyle more than they had anticipated, and as a result became happily immobile. The findings of this research suggest that housing mobility is complex, dependant on a number of contextual factors, and therefore difficult to accurately predict.

Housing and health

Research on the health outcomes of substandard housing in New Zealand has highlighted the problems that arise when housing is damp and/or cold. Although much of that research is quantitative and not directly applicable to my research, the findings give an indication of how housing in New Zealand can affect the health of residents.

A damp and cold house was found to be closely linked to other variables such as the cost of housing, social housing and large households (Butler et al., 2003). Another survey focused on the effect of mould and reported that residents cited dampness and moisture as the primary cause of mould. Less common, but still influential was limited sunlight, poor ventilation, coldness, limited insulation, poor house design, humidity and leaks (Howden-Chapman et al., 2005). Together, these studies suggest that coldness, dampness and mould are closely linked and prevalent in New Zealand homes.

There has also been writing on how people living in damp, cold and mould houses have attempted to mitigate these conditions. Howden-Chapman et al. (2005) explored how households responded to living in cold and mouldy houses. Their results found that most of respondents employed a number of strategies as they attempted to mitigate the effects. In order from most popular to least they were; paying for commercial cleaners, cleaning and

washing the mould, ventilation, using a dehumidifier, wiping up moisture, increasing heating, using an extractor fan and installing insulation.

Overall, the research on New Zealand's overcrowded, damp and cold housing suggests it is a serious problem. The health effects of overcrowding in houses have been identified as a contributing factor in New Zealand's high levels of tuberculosis (Das et al., 2006). The flow on effects of the dampness and coldness can include increased likelihood of asthma and maternal depression (Butler et al., 2003). Solutions appear difficult to achieve because the cost of heating poorly insulated housing is high, and those in vulnerable houses are more likely to earn less. This has created a problem of fuel poverty in New Zealand where many people are unable to heat their homes sufficiently. The effect of fuel poverty in New Zealand is estimated to be an eight percent increase in hospitalisation for respiratory related illnesses (Howden-Chapman et al., 2012).

Key concepts and theories

Capability

I use the term capability to mean the ability of an individual to fulfil their definition of wellbeing. This interpretation of the term capability comes from the work of Zimmermann (2006) who reinterpreted Sen's (1999) capability approach in a way that fits with my ontological assumptions. Sen's notion of capability was formulated in the field of welfare economics and highlights the way in which freedom can be subjective and access to it limited:

The concept of "functionings", which has distinctly Aristotelian roots, reflects the various things a person may value doing or being ... A person's "capability" refers to the alternative combinations of functionings that are feasible for her to achieve.

Capability is thus a kind of freedom: the substantive freedom to achieve alternative functioning combinations (or, less formally put, the freedom to achieve various lifestyles) (Sen, 1999, p. 75).

Although Sen's concept of capability was somewhat useful in explaining how the functionings of the participants were unable to be realised, there are conceptual and

methodological problems with Sen's capability approach that make it inapplicable to this study. Firstly, Sen's theory suggests that freedom is achieved, and secondly that freedom is substantive and can be more or less quantified. However, Zimmermann (2006) offered a reconfiguration of Sen's capability approach that addresses these concerns and therefore reinterprets capability into an alignment with the epistemological assumptions of this study's approach. While Sen (1999) viewed freedom as an attainable value based on the substantive essentialism, Zimmermann considered freedom to be a process that 'occurs through permanent doing' (Zimmermann, 2006, p. 477). Acknowledging that freedom is an ongoing performance rather than a state aligns neatly with the ontological assumptions of this study's qualitative methodology.

It is also important to note that capability does not refer to the economic concept of rational choice because as Zimmerman (2006) explained in her reconfiguration of Sen's Capability Approach, one's ideal choice often extends beyond personal interest by also including collective values and compassion. Additionally, Zimmerman's sociological interpretation of capability highlighted the fluid nature of an individual's possibilities and opportunities at any given time.

Literature that applies a capability approach to a post-disaster context includes Murphy and Gardoni (2010) who formulated an index to gauge how the loss of capabilities impacts societies per capita. Survival basics such as housing and food act as indicators to predict what the impact will be on the wider community. The application of Sen's (1999) capability approach to disaster research resonates with a functionalist view of resilience which results in a focus on concepts such as risk, resilience, adaptation and coping. Because of this I have highlighted Zimmermann's ontological reframing of the capability approach.

Mobility and motility

I use the term mobility throughout this thesis differently to the way in which it is commonly used in housing research (see residential mobility). Instead, mobility will be used in relation to work from theorists within the mobilities paradigm in the social sciences (Cresswell, 2002; Sheller, 2014; Sheller & Urry, 2006; Urry, 2000). The mobilities paradigm does not seek to recreate a new mobility narrative, instead it seeks to open up sociology beyond society and

acknowledge the importance of movement and mobility of the contemporary world (Sheller & Urry, 2006). As will be explained later in the methodology chapter, the importance of mobility emerged during the analysis, and by drawing on this paradigm the experiences of the students became coalesced into a coherent theory.

A concept within the academic field of mobilities that I incorporate into the discussion chapter is Kaufmann's concept of motility. Originally formulated in relation to technical transportation and telecommunications, motility considers the capacity to be mobile, therefore, the opportunities that people have are a central focus of the concept. Motility is defined as individual's capacity to be mobile because it considers the mobility opportunities which are available, and also the reasons why these opportunities are appropriated (Kaufmann, 2002). Furthermore, motility can be regarded as a form of capital in both horizontal and vertical contexts; as spatial mobility and social mobility (Kaufmann et al., 2004). Both of these contexts are explored in this discussion section. Kaufmann (2002) expanded on the concept of motility by defining its three elements; *access*, *skills* and *appropriation*. These three elements illustrate the ways in which mobility depends on opportunity, capability and values.

Access refers to the accessibility of possible options. Accessibility depends on whether a person possesses the means, such as economic capital and support networks, to use the options that are available to them. Access is contextual because it depends on the intersectionality of flows and networks and how they exist in relation to each individual.

The element *skills* is defined as an individual's ability to access options which can overcome mobility barriers. For example, the ability to communicate effectively. Possessing skills is contextual and can be influenced by a variety of actors, therefore, poor communication cannot be assumed to be caused by one person. Communication is also dependant on numerous technologies such as mobile phones, email and transport. Consequently, skills depended not only on inter-personal relationships, it also requires access to, and the ability to use, technologies. The third element of motility is *appropriation* which considers one's values. The decision to appropriate mobility is shaped by many subjective values, preferences and aspirations. For example, the differing values and desires to become mobile, or stay immobile could be influenced by how one's own housing is perceived. One person's mobility

could be seen as disempowering, whereas for another in the same situation, mobility could fulfil a need and provide security.

Motility is control over one's mobility, therefore, the opportunity to be immobile—being able to stay in one's house/neighbourhood without impacting on quality of life—can be just as important as possessing the means and opportunity to move into a *better* house or neighbourhood. By applying Kaufmann's concept of motility in the discussion chapter I am able to illustrate the way in which spatial and social mobility has shaped the housing experiences of the participants in a post-earthquake environment.

While motility has not been applied to post-disaster contexts there has been research which sits within the mobility paradigm. Sheller (2013) explored the movement of networks in Port-au-Prince following the 2010 Haiti earthquake. The findings show how the US military controlled the international airport which ensured they could control the boarder, criminalise and marginalise disempowered populations. Controlling movement and resources extended throughout the island as militarised geo-mapping ensured securitisation of refugee camps. The article shows how in a post-disaster environment mobility was controlled.

Samuels (2012) also considered the relationship between power and mobility in a post-disaster context. Focusing on the different mobility experiences of men and women in the aftermath of the 2004 tsunami in Aceh, Indonesia Samuels showed how everyday practices limit the capability of women to be mobile. The outcome was social exclusion and limited opportunity to relocate, however, by remaining in Aceh there was more likelihood of having access to housing. A mobilities lens can help illuminate power inequalities and the importance of networks.

Social capital

Social capital is a concept that explains how social networks act as a form of capital, or an asset (Field, 2003). Putnam (2000) credited Hanifan for originally defining the concept in 1916 when he highlighted the importance of community involvement in schools, however, it was not until the 1970s that social capital was more thoroughly theorised by Bourdieu (1977). Following this social capital was used during the 1990s by Coleman (1990) and then popularised by Putnam (1995). These three influential theorists have offered different

interpretations of social capital. Bourdieu has explored other forms of capital, such as cultural capital and symbolic capital (Bourdieu, 1984; 2002). Coleman's work came from an individualistic and rational choice perspective; as a result his influence spread through economics (Field, 2003). Lastly, Putnam's work drew on quantitative data and an empiricist methodology. Because of Putnam's ontological foundations his work has been widely used within political and civic circles (Field, 2003).

One of the critiques of social capital in the social sciences has been its simplification and overuse within a political-economic context. Fine claimed there has been a 'McDonaldisation' of social capital by omitting class and context from analysis, as a result social capital has focused on the individual and accentuated the *who you know* connections through Colman's version of social capital (Fine, 2010, p. 17). Furthermore, Coleman (1990) and (Putnam, 2000) have a tendency to overemphasise social capital as a positive, whereas Bourdieu's theories of cultural and symbolic capital do not gloss over the negative aspects of social, cultural and symbolic capital.

Bourdieu's capital in its various forms are more appropriate for this research as it allows for a more nuanced explanation of how the participants have experienced the earthquakes affected people or groups. Furthermore, a Bourdieusian approach to capital is useful in considering how privileged students used their networks or status to benefit from the earthquake, or, marginalised students found that their capital led to further marginalisation, political silencing and social exclusion.

An example of the negative effects of social capital can be found in the work of Ganapati (2013) who showed that following the 1999 Marmara earthquake in Turkey, women's social capital was a downside and gendered assumptions created conflict between the state and women. This form of social capital takes into account the concept of vulnerability by looking at networks of vulnerability to highlight the multidimensional process of vulnerability. In contrast, Hurlbert et al. (2000) found that following Hurricane Andrew people who were in networks with gender diversity or with networks with a higher proportion of men were more likely to have access to informal support.

Moving beyond gender, Haines et al. (1996) suggested that social capital and cultural capital can be more useful than economic capital in a post-disaster context. They claimed religion, one's network structure and the bonds that exist through community attachment as more

useful to survivors during the short-term recovery period. Over a longer period, however, social capital and cultural capital can become depleted and less effective.

Resourcefulness

MacKinnon and Derickson (2013) attempted to overcome the aforementioned problems associated with resilience. They offered the concept of resourcefulness as a way of leaving behind the historical and ontological baggage attached to resilience. Resourcefulness acknowledges how resources and opportunities are unequal, as well as how the capabilities of groups differ. Resourcefulness is also applicable to individuals because showing resourcefulness depends on one's skills and values. As a theoretical concept, resourcefulness is useful for this research because it encourages analysis based on positionality and the term does not carry the problematic connotations that are attached to the concept of resilience.

The significance of these concepts for understanding student experiences of housing insecurity will be discussed in greater depth later in the thesis.

Grey literature and government reports

Grey literature on the Christchurch earthquakes have come from a range of sources such as government departments, Christchurch City Council, social service organisations and non-government organisations. The advantage of the grey literature is that the publication of the material is quick in comparison to academic literature, however, the downside in relation to this thesis is that much of the grey literature is quantitative and empirical. Despite the epistemological and ontological constraints, the reports and surveys are valuable because they help in providing me with a broader picture and also contextualise the policy responses that have already occurred.

The CERA Wellbeing Survey (CERA, 2014b) is a prime example of the grey literature. Throughout the three years following the September 2010 earthquake 25 percent of greater Christchurch residents moved house 'due to the impact of the earthquake', and another 17 percent moved house 'in part due to the impact of the earthquake' (CERA, 2014b, p. 26).

From the 25 percent who moved house 'due to the impact of the earthquake' 39 percent were living in temporary housing at the time of the research (CERA, 2014b, p. 26). Unfortunately, the quantitative approach used in the CERA reports limited their applicability to this thesis.

The Institute of Geological and Nuclear Sciences (GNS) released regular reports. While most of the literature from GNS was geological, there were some reports that were applicable to this thesis. For example, a publication on population movement included statistical information on the relocation of residents (Newell et al., 2012). Similarly, the CERA website provided regular updates on the changes occurring in Christchurch (CERA, 2012a; 2012b; 2014a).

Conclusion

The literature presented in this chapter reflects the position of this research in relation to academic fields. Although my research is sociological, it is also influenced by other academic areas. The disaster related research I have reviewed is multi-disciplinary and includes various methodological and theoretical influences. Similarly, much of the housing research is sociological, however, some of the writing is policy orientated and leans towards a quantitative approach. Naturally, I have not been able to include all of the existing literature that relates to this research due to restraints on space and time, however, I have covered the relevant literature that I consider to be useful and applicable to the data I have collected.

The disaster research, housing studies and mobilities literature demonstrate why a sociological investigation into students' post-quake housing is of value. A qualitative inquiry is suitable for exploring the nuances that occur in a post-disaster environment. Furthermore, a sociological approach that acknowledges the issues associated with common post-disaster concepts, such as resilience and vulnerability, can illuminate the experiences of post-disaster housing in an unproblematic way. Since there was no existing research into students' experiences of housing following the Christchurch earthquakes this thesis will fill that gap and add to the academic fields that it draws upon.

The process of drawing together this chapter has been prolonged and circular. In accordance with a constructivist grounded theory approach the initial reading of existing literature was

limited. As I progressed through the data collecting phase and theorising phase my reading responded to the findings that were emerging from the data. For example, the research and theoretical ideas related to mobilities and residential mobility became more influential towards the end of the project. As it became clearer that the participants' experiences were centred on their movement, my understanding of post-earthquake housing developed into a coherent theory that offers an explanation of the experiences of some students' housing insecurity.

3. Methodology

Introduction

This chapter provides a detailed description of the research strategy and design. The aims of this study and research questions will be briefly reiterated to clearly show why specific methods were chosen. Following this, the research methodology will be discussed where I explain why I chose a qualitative approach and why a constructivist-interpretivist paradigm was considered to be the most appropriate. Thereafter, the decision to use constructivist grounded theory (CGT) will be justified, including the process of selecting the participants and the ethical considerations which this entailed. Within a CGT approach, the analytical methods are flexible, but generally follow the classic grounded theory approach of Glaser and Strauss (1967); coding, mapping and memos. In addition to those three traditional grounded theory methods, the analytical mapping processes devised by Clarke (2005) are employed as a way of interpreting the data. Together, this research draws on a number of complementary methods and analytical tools that fit with the epistemological and ontological assumptions that I bring to this study.

Qualitative research approach

Since the objective of this study was to investigate how students managed the challenges they faced with insecure housing, it was necessary to select a research methodology which would generate an understanding of their lived experiences. Bryman (2004) described a qualitative approach as being useful for exploring the meanings that people attribute to their experiences because it tends to allow for a detailed exploration of lived experience. Tolich and Davidson (2003) illustrated the different strengths of qualitative and quantitative research; a qualitative approach is useful for generating data that is rich and narrow so that complexity and pluralism can be considered, whereas quantitative methods are more useful for broad and shallow data which results in measurable outcomes. Since this research investigates the housing insecurity of students after an earthquake, rich and narrow data is desirable.

In a disaster context, a quantitative sociological approach can be problematic. Quarantelli (2001) suggested social scientists who were researching disasters should be careful when applying analytical frameworks that draw too much on statistics because they can be unreliable. The issue of inaccurate quantitative data can be the result of ‘definitional problems’ (Quarantelli, 2001, p. 337). For example, how long does someone have to be without shelter before they are *homeless*? Or when does a *disaster* officially become a *disaster*? Because of the fluid nature of these terms even simply defining a disaster through a quantitative framework becomes difficult. As a result, qualitative methods are more suitable for interpreting and contextualising an occurrence because qualitative data generates accounts that celebrate difference and diversity, whereas quantitative data is more suitable for measuring and then reaching a consensus. I have chosen a qualitative approach to make sense of and interpret the participants’ experiences through the meanings that they attribute to them (Denzin & Lincoln, 2011). In this study of housing insecurity it was acknowledged that the participants’ understandings of the challenges that they faced may be different for each student. Therefore, since one of this study’s aims was to understand how challenges were overcome, it was important to use an approach that accepted multiple realities, and a qualitative approach was suitable in this regard. There is no attempt to uncover an objective truth, instead the experiences of the participants will be interpreted in all their nuanced complexity (Creswell, 2007).

In addition, it should be noted that, while I explored housing insecurity through the eyes of the participants, this was interpreted through me, the researcher. This is a feature of qualitative research; it accepts the contextual influence as part of the research process, including its effect on both the participants and the researcher. As Lofland and Lofland (1995) defined it, the epistemology of qualitative research requires a connection between the researcher and the participants, and also acknowledges the connection as part of the knowledge building process.

Constructivist-interpretive paradigm

According to Lincoln et al (2011), within a qualitative research approach there are five main paradigms of enquiry; positivism, post-positivism, critical theory, constructivist, and

participatory. As the above discussion indicates, this research fits within the constructivist paradigm. I next explore that constructivist paradigm in more detail.

This research sits within a constructivist-interpretive paradigm, which views reality as a contested and relative interpretation, and therefore cannot be defined objectively (Guba & Lincoln, 2005). A constructivist position assumes that reality is subjective and multiple realities exist, rather than a single objective reality. This ontological view reflects my own understanding of reality, and also fits with the research aims and the qualitative methodology. Constructivists consider reality to be subjective, constructed through our lived experiences, and influenced by our environment (Lincoln et al., 2011). Therefore, this research does not claim to provide an objective truth, nor an overarching analysis of post-disaster student housing. Instead, the findings of this research are situated and the theory that is generated contributes to the existing post-disaster housing literature.

The epistemological belief within a constructivist paradigm is that knowledge is constructed through our interactions. Schwandt (2000) described the epistemological positioning of constructivists as viewing knowledge to be the outcome of our language, social practices and common understandings. In using a constructivist paradigm, this study accepts that the findings of this research are uncovered through the interaction between the participants and me as we draw that knowledge together into an explanatory theory. My influence and effect on the study therefore required constant reflexivity to ensure that the research findings would adequately reflect the experiences of the participants. I had to be aware of my positioning as the researcher, and how my involvement might influence every stage of the research process.

My position in relation to this research is shaped by where I have been living and my housing experience during and following the earthquakes. I have lived in Christchurch for a number of years and was living close to the central city throughout 2010 and 2011 when the most destructive earthquakes occurred. I was fortunate in that the house and neighbourhood that I was living in sustained minimal damage. Furthermore, I have also been lucky in that I experienced no housing insecurity during the few years following the earthquakes because I had access to cheap and secure housing through family networks.

Gair (2012) resisted the insider / outsider dichotomy and instead claims that researchers are rarely one or the other. Following Gair, I define my position as both an insider and an outsider, because I possess aspects of both. I would position myself as an insider in respect to

the post-disaster environment as I lived in Christchurch during this period, but in regards to housing insecurity I consider myself as an outsider because my housing has remained relatively secure during this time. My housing experience following the earthquakes provided me with valuable insight into the challenges faced by the participants. Also, the house that I resided in throughout the research had some minor structural damage which left it difficult to heat, and was located in a neighbourhood which had sustained extensive damage. Since I was living in Christchurch through the earthquakes, and taking into account the fact that I worked and studied at the University of Canterbury, I was and remain in some aspects an insider.

I believe my status as both an insider and an outsider is an asset to this research because I have witnessed the experiences that the participants went through. Although my housing was not insecure I had friends and family who were severely impacted. For example, close family members lost their house due to excessive damage in the February 2011 earthquake and they were renting for more than three years. Living in Christchurch through the earthquakes has allowed me to have first-hand knowledge of the political and economic environment that has shaped the post-earthquake experience in Christchurch.

Constructivist grounded theory

Constructivist grounded theory (CGT) was considered to be the most suitable methodological approach. There are two key reasons why CGT was thought to be the most appropriate strategy of inquiry for this research. Firstly, an approach driven primarily by existing sociological theories was deemed unsuitable since I was investigating an issue which was largely unexplored. Secondly, the situation in Christchurch where I began this research excluded some theoretical approaches. There were not a significant number of documents for me to undertake a document analysis, and ethnography was unsuitable due to time constraints. As a result, CGT was deemed the most appropriate approach because it offered an opportunity to develop a theoretical explanation of an under-theorised topic; students' housing insecurity experience in a post-quake environment.

Grounded theory (GT) originated through the work of Glaser and Strauss (1967) as a method of inquiry for formulating theory which is grounded in the data. The goal of a GT approach is to discover a substantive theory which is systematically generated through social research

(Glaser & Strauss, 1967). GT is a comprehensive methodological approach which provides a step by step process from the beginning of the research to the end (Dey, 2004). GT during this period was considered to be inductive and the researcher was encouraged to go into the field without any preconceived ideas or excessive background research (Mills et al., 2006). This methodological framework was a response to the deductive social research of the time which was hypotheses driven empirical research shaped by social theories (Dey, 2004). This classic form of GT remains relevant and popular today, however, over time adjustments and revisions have been made.

Since the GT method was devised, it has been re-envisioned along with the social science research paradigms as they have moved in and out of fashion. During the 1990s, Strauss and Corbin offered new ways of analysing the data. Their reinterpretation is distinct from Glaser's approach in the way that the data is analysed, particularly during the coding process (Dey, 2004). Glaser (1978) defined coding as substantive and theoretical; substantive being the first stage of coding, and theoretical coding as the second stage where the initial codes are categorised. In contrast, Strauss and Corbin (1990) offered a more detailed and structured method of coding which included three stages; open, axial and selective. Firstly, open coding is where the data is examined, broken down and conceptualised and categorised. Secondly, axial coding reconstructs the open codes in various ways to make connections within the data. Lastly, selective coding requires the researcher to define the core category and consider the connections with the other categories as the theory is refined. This difference meant that Strauss and Corbin's method of coding allowed for a more descriptive analysis that propelled forward the formulation of theory. The new procedure became popular as it set out a clearer process of coding which appeals to many new GT researchers, however, Glaser (2002) believed that Strauss and Corbin's approach forced the generation of theory into preconceived paradigms. In addition to Glaser's and Strauss and Corbin's versions, another form of grounded theory emerged.

With the postmodern turn and the increased popularity of the constructivist paradigm, there came another interpretation of GT, and it is this later form of GT which I use to explore housing insecurity. Building upon the classic work of Glaser and Strauss (1967), and Strauss and Corbin (1990), constructivist grounded theory (CGT) emerged as a way of situating GT methodology within a constructivist-interpretive framework. CGT fits within a constructivist-interpretive paradigm by assuming multiple realities, the importance of subjectivity, an

acceptance that the research is interpretive and influenced by researchers (Charmaz, 2011). A CGT approach brings classical GT methods under a constructivist paradigm, and as a result the processes of the research and the analytical methods change. For example, I researched some existing literature related to housing insecurity within a post-disaster context prior to the interviews in order to determine to what extent the topic had been explored and to assist me with the formulation of questions, and I continued this reviewing throughout the research period as themes emerged. Therefore, to claim that the findings have emerged solely from the data and are free from preconceived ideas is problematic. The influence of pre-existing ideas and theories as contributions to research is accepted within a CGT approach—to a degree. By firstly reviewing the relevant literature I ensured that I understood the broad contextual landscape. Thus, I was able to locate my own epistemological position, and therefore my own axiological beliefs before exploring the experiences of the participants.

CGT is an approach which demands reflexivity, and requires that it is made explicit (Charmaz, 2011). This reflexive process began at the start of the thesis proposal, continued as the research plan was formulated, and progressed through the data collection and analysis phase. As I carried out the interviews, and also coded, categorised and theorised the data, my reading and studying of relevant literature continued simultaneously and my reading followed the themes that began to develop. Therefore, I found a CGT approach fitted with my overall research process because separating my axiological positioning from the GT process was difficult at best, but more likely not possible. Prior knowledge of the situation is ‘valuable, rather than hindering’, as long as researchers maintain an awareness of their own knowledge (Clarke, 2005, p.13). This is imperative if the researcher is to remain reflexive about, and aware of their position, assumptions, and preconceptions. Throughout the research process as a whole I was constantly reflexive of my assumptions, as well as my influence on the interpretation of the students’ experiences, and how this may have affected the outcome of the study.

The CGT method that I employed in this study draws predominantly on the work of Charmaz (2000; 2006; 2011) as a methodological guideline, as well as Clarke’s (2005) analytical technique of situational mapping which I found to be a useful tool for visualising the data through a postmodern lens. Alongside Charmaz, and also within the constructivist grounded theory camp, Clarke has taken the constructivist approach to grounded theory and added relativist and perspectival elements to the analytical process (Clarke, 2003). Clarke’s

situational analysis exercises offered a mapping technique which I used alongside more traditional grounded theory tools. This method of mapping introduced a postmodern ‘ecological bent’ into a grounded theory approach (Clarke, 2005, p. 10). By bringing in a positional element to the analysis, the positions and perspectives of the participants can be explored in relation to their own environmental influences. For example, a participant may be under duress from elements and things which exist in their micro-system, whereas another participant may describe their macro-system as the primary source of their stress. Additionally, the mapping techniques allow for a critical perspective to be applied when interrogating the data. For example, critical discourse analysis bridges the gap between postmodern and critical theory, and can be valuable to researchers as they consider how participants construct meaning (Clarke, 2005).

Constructivist grounded theory, with the situational mapping technique as an analytical tool, was chosen as the research approach because it allows for a postmodern analysis of the experience of housing insecurity and accepts the relativist understandings of the reality of the participants. Together, my CGT methodology combines the work of Glaser’s, Charmaz’s and Clarke’s approaches into one; as Glaser and Strauss (1967) acknowledged when they first formulated GT, the processes and procedures of GT are not clear cut methods, and can be altered or improved depending on the research context.

Participant selection

The participants were all University of Canterbury students who were at the time of research experiencing housing insecurity, or who had previously experienced this, following the Canterbury Earthquakes. I decided that identifying exactly when and how a housing issue becomes *housing insecurity* would largely be left to the prospective participants, with some caveats. One of the caveats was that the experience of housing insecurity had to have lasted for at least one month. The reasons why I avoided making concrete assertions as to what constituted housing insecurity is based on the ontological and epistemological assumptions of the research. For example, insecurity to one participant may be markedly different from others, even if they are experiencing seemingly similar circumstances. The subjective nature of reality that constructivist ontology assumes and accepts is that similar circumstances can

be experienced differently, regardless of context. Therefore, in order to define who was and who was not an appropriate participant, I discussed the aims and objectives of the research in relation to the issues faced by potential participants, before proceeding to the interview stage.

In some situations students suffered what would usually be considered *insecure housing*, but they did not consider themselves to be under any great stress or discomfort. Two of the participants were forced into changing their place of residence temporarily with little notice, so their experience of housing did match the broad examples suggested on the posters.

Despite their sudden upheaval and relocation, they claimed that they never felt their housing was *insecure*. Both students informed me of this before the interviews, however, I requested they partake in the project so that their *security* could be explored. The information they provided made valuable contributions because they described why the sudden changes they experienced did not result in feelings of insecurity, or displacement.

The recruitment period lasted for six months, with most of the participants being found during the last four months. There were four ways in which the participants were recruited; posters were placed in common areas throughout the university (Appendix I), I promoted the research through social media sites such as student pages on Facebook, information was emailed through the network of the Pacific Development Team, and finally, these three primary avenues were complimented with the process of snow-balling. All four of these methods of recruiting participants proved equally effective.

Throughout this process I was aware that by drawing on the network of the Pacific Development Team, the selection of participants could have been shaped through the process of gatekeeping. Gatekeeping was described by Broadhead and Rist (1976) as an occurrence where people are denied from having the opportunity to participate in the study if the researcher attempts to get access to participants through organisations. However, this possibility was avoided because the Pacific Development Team emailed the research information sheet to all of their students, thus extinguishing the possibility of gatekeeping. The University Accommodation Advisors were also asked to assist me in reaching potential students, however, they considered it to be unethical of them to forward on research information to the students who had come to them for support, and I respected this.

Sixteen participants were recruited for interviews. I attempted to recruit participants across a number of social groups, in particular class, gender and ethnicity, to obtain a stratified

purposive sample. Purposive sampling is a strategic approach to recruiting participants which ensures that the sampling is relevant to the research objectives (Bryman, 2004). Similarly, Charmaz (Charmaz, 2006) referred to the starting point for CGT data collection as initial sampling, before later moving onto theoretical sampling. Within the first five interviews I was able to recruit a wide sample of participants. They had been living in different areas of Christchurch and some of them had children, while others lived with their parents. The initial participants were also an ethnically diverse group and their level of study range from their first year through to post graduate. Through these initial interviews I was able to confirm that housing insecurity was a complex issue worthy of further exploration. It was soon made clear to me that housing insecurity did not occur immediately after a major earthquake before dissipating, instead, it was a process with peaks and troughs which continued for months, and even years.

As the interviews progressed and the categories developed, my recruitment strategy shifted from initial purposive sampling to theoretical purposive sampling. Theoretical sampling is a data collecting process which is shaped by the categories that have begun to emerge through the coding of existing data (Glaser & Strauss, 1967). Once the concepts began to emerge and the properties of the categories developed, I then searched for participants whose experience, or situation, was relevant. This was the period of the research where the categories were elaborated on, and refined (Charmaz, 2006). In addition to the interviews, my research of documents also followed the path that was being created through the continuing analysis. The emergence of categories relating to mobility and immobility of the participants led me to further reading and exploration of existing research. Also, the development of a category concerning the power discrepancy between tenants and landlords led me to search for pertinent grey literature.

In accordance with a grounded methodology I continued data collection until theoretical saturation occurred. Theoretical saturation is reached when the data collected no longer add to the emergence of new theoretical insights. Saturation occurs not with the repetition of the same experiences, instead it is when the researcher no longer discovers new patterns within the data which explain the phenomena in a different way (Charmaz, 2006). This stage was reached at approximately the thirteenth interview and the remaining interviews were used to explore the key theories which had emerged. The selection of the interviewees during this

phase, of theoretical sampling, was more specific as their experiences had to be relevant to the theoretical categories.

Ethical considerations

The research was approved by the University of Canterbury Human Ethics Committee. I undertook a number of measures to protect the wellbeing of the participants throughout the research process. The participating students were given an information sheet stating that the data would remain confidential, and their identity would remain hidden through the use of pseudonyms. Before each interview began I reminded the participants of their right to withdraw from the research up until one month after the interview, however, beyond that point their data would be subsumed into the research and could not be withdrawn. All of the participants signed a consent form to acknowledge that they understood their rights as participants, and they agreed to partake in the research under those conditions (see Appendix II). To ensure that confidentiality was maintained, data was stored in a locked cabinet within a locked room and the participants' contact information was kept separate from the data. Interviews were transcribed and the interview transcripts were offered to the participants to read and they were able to make adjustments if they wished to do so. Approximately half of the participants requested their transcripts and there were no requests for alterations.

Ezzy warned researchers that ethical research is an ongoing 'weighted consideration' which must extend beyond gaining approval from an ethics committee (Ezzy, 2002, p. 31). My work as a tutor proved to be a good example of how ethical issues can emerge when the researcher is least expecting them. Following the first tutorial with a new class, one of the students informed me that they were my next interview participant. The interview had been organised for the following day. My reaction to finding out a student was also participating in my research was to inform the student that participation in this research was no longer possible because I was concerned that the participant may feel as though they could not withdraw from the research freely if they wanted to later. Furthermore, the conflict of interest could impact on my ability to perform my job as a tutor and a marker. However, the student stressed their desire to participate in the project and claimed that their experiences of housing insecurity would be useful for the study. Consequently, I sought advice. Firstly from my

supervisors and then from the course coordinator who was responsible for the course I was tutoring. After much discussion and planning, this ethical hurdle was carefully negotiated and a compromise was reached; another tutor would mark the assignments of the student. I believe that both the interview and the participant's learning was unaffected, however, this was a timely reminder of the power issues and ethical complexities which can arise when researching.

In-depth interviews

Rationale

Creswell (2007) noted that the aims and objectives of the research should define what kind of interviews are most appropriate. In line with this call for consistency between aims, objectives and data gathering methods, an individual in-depth interview format was chosen as the primary method of data collection. Since the aim of this research was to explore how students negotiated their housing insecurity, in-depth interviews were the most suitable form of interviewing for exploring housing insecurity deeply, and to consider the changes and challenges that the participants had faced (Johnson, 2001). In depth interviews allowed me to gain understanding and knowledge of participants' experiences because the unstructured framework of the interviews allowed the students to talk about the issues they considered to be important. The conversational format allowed the participants to fully explain their experiences without being restricted by closed questioning.

In-depth interviews also fit neatly with the epistemological assumption of this study's constructivist-interpretivist approach, which requires a recognition of the co-constitution of knowledge through the interactive process of interviewing. Employing an unstructured approach for the interviews allowed for reciprocity to develop between the participants and myself as we co-constructed knowledge through our interaction and so acknowledges that the interaction between the researcher and participant was part of the data gathering process (Johnson, 2001; Mills et al., 2006a). The connection between the participants and me created a shared subjectivity where the knowledge of the participant was reinterpreted through our discussion, and later the analysis. A relaxed atmosphere was important, as it encouraged a friendly environment so that conversation flowed as naturally as possible. Thus, the in-depth

method was chosen so that the data collected was consistent with an interpretive epistemology. In addition to being epistemologically coherent, in-depth interviews also align with the ontological assumptions of a constructivist-interpretivist paradigm, which rest on ideas of multiple realities. Johnson (2001) noted how in-depth interviews are a method of inquiry which embraces the complex nature of human experiences. The way people describe a phenomenon can involve conflicting views, multiple realities, and perspectives which may be contradictory. As in-depth interviews encourage the participants' experiences to be described in all their nuanced complexity, they were the most ontologically appropriate method for the task at hand and suitable for exploring potentially paradoxical interpretations.

Unstructured interviews

In line with the need to elicit as much complexity and nuance as possible from the interviews, an unstructured format was considered to be the most appropriate method of conducting these in-depth interviews. This is because an unstructured approach allows for flexibility and gives the participants space to voice their story because the conversational process is not shaped by the interviewer to the degree that it is in a structured interview (Tolich & Davidson, 2003). Bryman (2004) outlined the difference between unstructured and semi-structured interviews in more detail by noting that within an unstructured interview, the path of the interview is determined by the interviewee, whereas a semi-structured format is shaped by a list of questions which serve as a guide. However, it is difficult to clearly define when an unstructured interview becomes a semi-structured interview, therefore, these two formats can be viewed on a continuum, rather than as two separate approaches. Interviews towards the unstructured end of the spectrum offer more agency to the interviewees because the power inequality that often exists within more structured interview environments become more balanced (Murphy & Dingwall, 2003).

The interviews were more towards the semi-structured end of the spectrum and the questions became more focused on the emerging categories as I neared the end of the research, however, the first few interviews were more explorative and unstructured. I prepared myself for the initial interviews with a list of questions, although these were only used as a guide and the path of the discussion was largely defined by the participants. Following the first few interviews I began to alter the questions more to make them more applicable to the

participant and more focused on the theories which had already emerged from the existing data. Towards the latter interviews I noticed the interviews became more structured as theoretical saturation occurred alongside my theoretical sampling. While the degree of structuring interviews shifted through the process of data collection, the interviews all still remained true to the principles of a constructivist-interpretive approach.

Process of interviews

A pilot interview was carried out as a way of testing the questions and topics which I had originally planned to cover. This proved to be a fruitful process, because adjustments were made to my first list of questions and I was also made aware of the importance of breaking the ice. All of the interviews took place on the University of Canterbury campus. The location of the interviews was at the discretion of the participants. Holding the interviews in either a library discussion room or a classroom on campus created a formal environment which was not conducive for relaxed conversation. To make the interview situation more informal I brought chocolate or other nibbles, and on occasions I also provided coffee. Before the interviews began I encouraged the participants to ask me questions about myself or the study and on most occasions they used this opportunity to clarify the goals of the study. I usually received one or two questions about why I was doing the study, and this allowed me to open up to the participants about my experiences during and after the earthquakes. I found this opening question to be a good way of breaking the ice and creating reciprocal trust between the participant and myself. Following this I made sure the information sheet had been read and that they were aware of their rights (see Appendix II).

The interviews were recorded with two voice recorders as a protective measure to guard against a failed recording. Despite taking this precaution, during one of the interviews both of the recording devices malfunctioned and as a result only the beginning of the interview was recorded. Fortunately I became aware of this as soon as the interview concluded and I immediately wrote up extensive memos while the interview remained fresh in my mind. I also asked the participant to look over the memos and add any information which I may have missed; two additional points were provided in response to my initial memos. Apart from that technical mishap the remaining interviews went according to plan. Most of the interviews lasted between 45 minutes and 90 minutes, however, towards the end of the study, as

theoretical saturation occurred, the length of the interviews decreased as the discussion focused on the themes that had emerged in the ongoing analysis.

The line of questioning in the interviews began with the participants being asked to describe their housing experiences following the earthquakes. Following this, the interviews evolved largely directed by the participants' narratives, however, I had a list of questions to draw from if the flow of the interview stopped or the discussion moved off topic. The conversational format proved to be a suitable approach because it allowed the participants to control the direction of the conversation which both addressed the issue of power imbalances within an interview context, but also allowed participants to extemporise on what they regarded as important and significant. Bryman (2004) highlighted the value of unstructured discussion within qualitative interviews as it gives agency to the participants and encourages them to discuss the issues that they consider relevant; for this reason I refrained from changing topics of conversation or otherwise shaping the conversation as much as possible. While post-quake housing remained the focal point of the conversations, the unstructured interview format encouraged the interviewees to move the discussion along pathways that I had not expected. As a result our conversations created transcripts with depth and texture.

In their invitations to participate in interviews, participants were offered the option of bringing objects, mementoes or photos as a way of stimulating discussion. The reasoning behind this was that photos and physical objects can promote in-depth talk, and thus encourage description of experiences which may otherwise be difficult to articulate (Harper, 2002). Despite the suggestion to bring physical objects as a memory trigger, only one of the participants brought photos along, and she forgot that she had brought them. She remembered at the end of the interview, however, by that stage she had already discussed in detail what was in the photo, and the images added little to her description. Upon reflection it appeared that the use of visual stimuli within this context was not needed in the way I had anticipated. I believe that the interviews were successful without the use of such additional prompts because the recruitment process required the students to actively contact me in order to participate, therefore they had a strong desire to be involved in the project, and had perhaps already given a lot of thought to what they wanted to discuss. Furthermore, the participants appeared to have turned up after thinking about what they were going to talk about and they did not have much trouble recalling events, nor articulating their housing experiences.

Prior to starting the data collection I considered the possibility of visiting the participants' housing to gain a better understanding of their living situation, however, the research protocols of the ethics committee restricted the opportunity to view the housing insecurity first hand. The ethics committee suggested that an observer should accompany me to the participants' residence to ensure my safety. This would have complicated the confidentiality agreement between me and the participants. As it happened, many of the participants had returned to or moved into more secure and improved housing by the time of the interviews, and as a result their house at the time was usually irrelevant to the experiences that they had come to discuss.

Secondary data

In addition to the interviews other sources of data were drawn upon in an attempt to discover the housing insecurity of the students. Glaser and Strauss (1967) highlighted the benefit of extending research into additional forms of literature such as city plans, letters and documents. Throughout the study I drew on numerous news reports about the housing situation in Christchurch so that I remained aware of the wider social, economic and political changes which were occurring within the Canterbury region. These reports appeared in blogs, grey literature, documents and newspaper reports which were produced by a variety of non-government organisations, and community groups. There was also material specific to the University of Canterbury, such as the weekly CANTA magazine. Memos were made from this additional data collection and connections were also drawn between themes reflected upon in these memos and themes emerging in memos resulting from the interviews.

Analytical methods

Coding

The analytical tools I used were a combination of Charmaz's (2006) CGT methods of coding and memoing, as well as Clarke's mapping technique. The mapping techniques allowed me to explore the participants' relativist positioning (Charmaz, 2000; Clarke, 2003). I applied a

two-step process to the coding which began with the initial coding and then focused coding. When these tools are used under a CGT approach, the coding phase highlights analytical ideas and themes, then the most prominent codes are sorted and categorised (Charmaz, 2006). Following this, theoretical codes were developed and the axial coding phase was performed with the use of maps. Clarke's (2005) mapping approach offered me a way of *getting into* the data, and was also a process that helped to investigate how the participants' positioned themselves in relation to their social context.

The initial coding of the interview transcripts was performed on Nvivo, which is a software programme designed for qualitative data analysis. Theoretical saturation was reached after 16 interviews; at that point there were a total of 463 initial codes and 1709 references². Many of the 463 codes were closely related because they refer to specific issues or descriptions, however, I differentiated them with secondary labels to keep the large number of codes in a logical order. For example, there were 17 codes labelled *economic*, but their secondary labels included; cost of living, inequality, systemic issues, as a student, and so on. As the coding progressed and the list became longer, a clearer picture began to emerge. The large number of codes proved to be advantageous because they could be grouped together, reorganised, and also reinterpreted as the analysis continued. Reorganising and reinterpreting codes occurred more often over time as the number of initial codes increased. This created a cyclical and often messy coding process. Nvivo ensured that the initial coding remained organised, and that the data could also be sorted in a variety of ways. For example, I was able to sort the initial codes in reference to each participant, or according to the frequency of the codes. Once the initial coding was completed I then moved on to focused coding.

The process of focused coding requires the researcher to take the initial codes and categorise them incisively (Charmaz, 2006). To assist in the construction of the categories I considered a number of questions so that the properties of the codes could be explored.

1. What are the issues faced by the participant?
2. What processes are taking place?
3. How is the participant reacting? What kind of strategies are they employing?
4. How does the participant position themselves in relation to their challenges?

² The 'codes' are the labels given to a specific piece of text, whereas the 'references' are the number of times in which codes were given across all of the interviews

5. What is the participant taking for granted?
6. How is the structure and context affecting the experiences and the actions of the participants?

(Adapted from Charmaz (2003, p. 95))

I found these questions to be useful because they encouraged my analysis to consider the wider social influences of the initial codes, thus preventing me from becoming immersed in the micro-experiences of the participants. During this time the connections, differences, discourses and positions were recorded as memos. Those memos acted as a theory generating process, as well as a reflective exercise.

While the initial coding was performed entirely on Nvivo, the focused coding was performed by hand which allowed me to explore the *messiness* associated with such a large number of codes. Reorganising and reinterpreting codes during this stage of the analytical process was conducive to the formulation of theory because bringing together the multiple experiences of the participants into categories clarified why and how housing insecurity occurred. As I constructed the categories I was constantly returning to the initial codes, and even the transcripts, to reconsider the data from different perspectives. Therefore, although the focused coding occurred after the initial coding, this was not a linear process; instead, it was a circular process which allowed for new associations to be defined. Repeatedly returning to the codes and data is considered a key strength of the CGT method as it ensures an active connection with the data, and therefore creates new ways of analysing data (Charmaz, 2006). This stage involved printing the initial codes which included information such as which participants were associated with the predominant codes, before then reorganising them into categories.

Mapping

To assist in the construction of categories I employed a mapping technique because this allowed me to visualise the social context that the findings were situated in. This altered my analytical process from focusing on themes and discourses to encouraging a situational inquiry into the codes. Clarke's (2005) three mapping exercises were valuable tools for analysing the complexity of the data. These are called situational maps, social worlds/arenas maps, and positional maps. Firstly, *situational maps* were used to consider how the major

elements are related. These elements include people, material objects and discourses (Clarke, 2003); for example, family, houses, neighbourhoods and cultural values. The key benefit of situational maps is that they offered a visual form of brainstorming which assisted me in sorting the data.

Secondly, *social worlds/arenas maps* are used for a meso-level exploration into how the participants, organisations, institutions, and their discursive explanations interact (Clarke, 2005). Social worlds/arenas maps encourage a deeper theoretical analysis by situating people in relation to their broader social arena. The strength of exploring the data at a meso-level is that it illuminates the processes and interactions, as well the discourses that the participants are experience. Social worlds/arenas maps aim to challenge modernist assumptions of the essence of objects and subjects, as well as postmodernist views of fragmentation and unrelatedness, so that a middle ground is framed (Clarke, 2005). Social worlds/arenas maps were particularly useful in clarifying how the participants interact with organisations and groups, and also how those groups and organisations are related to one another.

Lastly, *positional maps* allow for a discursive exploration to examine the positions taken by the participants (Clarke, 2003). The benefit of this is that power relations are explored because boundaries between social worlds are acknowledged as fluid and porous, rather than static and bound. A key strength of positional maps is that they shed light not only onto positions taken by participants, but also onto untaken positions which may otherwise have gone unnoticed. Although Clarke (2005) noted that a downside of positional maps is that they can be procedural, I found these maps to be beneficial to my analysis because the systematic structure of the maps proved useful for situating and making sense of heterogeneous positionalities and discourses.

All three of these mapping exercises were used generally in the order that they have just been described. Situational maps and social worlds/arenas maps were very useful during the initial and focused coding, whereas positional maps were of more use during the latter stages of focused coding and proved to be helpful as I constructed the core categories and developed theory—the categories and theory are in chapters four and five respectively.

Memos

Memo writing is an important part of all GT research as it encourages the researcher to record their analytical thoughts from the beginning of the research process (Charmaz, 2006). I used memo writing as a tool to encourage constant reflexivity and this helped me to maintain an awareness of my axiological influence throughout the research (Mills et al., 2006). I began the memo writing process from the first interview and continued this throughout the study. Some of these were hand written in a notebook and typed up later. The memos written immediately following the interviews were useful for giving the interviews a contextual background. For example, within each of the interviews the conversation flowed differently and the participants occasionally deflected away from issues through the use of body language or silences. Those kinds of unspoken messages were recorded in memos after the interviews, and although they did not influence the transcripts to a large degree, they did help to contextualise the transcripts.

Memo writing stimulates new ways of viewing data, serves as an organising tool for large amounts of data, and can help to ensure the voice of participants remains central to the analytical process (Charmaz, 2000). Memo writing was continued throughout the analysis, including during the situational mapping. During that stage of the research the memos became a tool for theorising and a way of recording new ideas and concepts. Clarke (2003) highlighted the need for thorough memo writing when mapping techniques are used because it is in memos that the categories can be explored in deeper detail.

Conclusion

This chapter presented a detailed outline of the methodology. I described the methods in a chronological order to show how one method influenced the next to form a coherent research strategy. The methodology drew on a number of methods which suited the research question, the research environment, and also my epistemological and ontological perspectives.

The qualitative approach was chosen because it allows an investigation into the lived experiences of the participants and therefore fits with the aims of this research. As a qualitative researcher I acknowledge that the context of the research, as well as the

researcher, cannot be ignored, but instead should be embraced as a valuable part of the research process. My epistemological and ontological assumptions were presented to show how my axiological beliefs influenced the study's findings. Because of these assumptions this research sits within a constructivist-interpretivist paradigm. Furthermore, the lack of reliable data and unexplored nature of the subject meant that a grounded approach to data collection was considered the most suitable method.

The grounded approach covers the data collection, as well as the analysis. Both stages influence each other in an ongoing circular process and as a result I altered the interview questions as the research progressed. Although questions and topics were pre-prepared, the interviews were in an unstructured and conversational format so that the participants were free to discuss the issues that they deemed relevant to their housing insecurity. Each interview was analysed through the grounded methods of coding, mapping and memos.

A key strength of the methodology was the constructivist element within the CGT approach. The constructivist paradigm that the methodology was aligned with allowed existing theories to be used as an investigative lens through which the findings could be explored. This aspect of the methodology was crucial for the findings and discussion stages of the research. Being able to draw on existing theories during the latter stages of the analysis opened up new avenues of investigation.

In the following chapter I present the findings that emerged from these analytical methods.

4. Findings

Introduction

This chapter presents the findings that emerged from the interviews and analysis. It is organised into three categories; mobility, recreating security and loss. While these core categories are distinct, there is crossover between them and further sub-categories within them. The category *mobility* includes the continued relocation that the students faced, how stability was shaped by tenancy agreements and the EQC, and how the students searched for stability. The second core category *recreating security* details the strategies that the participants employed as they attempted to recreate security and recreate belonging. The other challenge related to recreating security was the unsuitable housing that the participants were living in. Lastly, *loss* includes the loss of material possessions, such as clothing and belongings. Furthermore, loss was also experienced in terms of political voice.

The excerpts presented in this chapter are reasonably long so that the stories, experiences and views of the participants are not overtly shaped by me. I have contextualised the participants' excerpts with additional comments to clarify their meaning, however, I have attempted to let the participants speak for themselves.

Mobility

The first core category is mobility which shows how the participants experienced movement. In some cases mobility was positive, but in others it was negative. One important aspect to mobility was the way it was always a possibility and it was always difficult to predict how the students would perceive their movement. Sometimes relocating was framed as being positive, whereas other times it was considered a threat. The unpredictable nature of mobility was not only in the responses and interpretations, but also in how it occurred. Tenancy agreements ensured renters would most likely be forced to relocate within 12 months. Similarly, EQC repairs could force out tenants or homeowners. In response to mobility the participants explain how they searched for stability.

Relocation

Relocation emerged from the data as a prominent category. For some of the participants relocation was framed as an imposition, not a choice, and therefore they experienced disempowered relocation. A further aspect to relocation was a feeling of dislocation which manifested itself in relation to one's neighbourhood, or in relation to Christchurch city. Relocation was experienced by all of the participants, however, the way they perceived their movement differed. For some, moving to live in another location was a short lived event and the experience of relocation happened without creating high levels of stress. For others, by contrast, relocation was an ongoing and protracted ordeal which led to dislocation and had a negative impact on their wellbeing. When participants relocated under seemingly similar circumstances, it was common to nevertheless find conflicting views about whether their relocation was beneficial or problematic. Occasionally the relocation was for a short period of time, for example due to EQC repairs, or to move into a house temporarily before more stable housing became available. Many of the participants showed a desire to move into a part of the city where the impact of the earthquakes had been less severe. Here Bill describes how moving out of his area improved his quality of life.

Bill: Every time I come over here I think that the people are quite fortunate that they're not living on our side of town because we got damaged quite badly. Once I lived over at my auntie's house then I realised how fortunate my auntie and all them are that they didn't get badly affected by the earthquake as well. So in a way I was happy, but I guess I just want to move to a safe environment.

Bill was fortunate in that he was able to move in with family into a neighbourhood on the west side of the city. For others who were also living in damaged suburbs, the thought of relocating from their neighbourhood was unappealing.

Miriama: Even now there's still heaps of places in the east that could be worked on and things like that, but they're working more on areas over this way like Cashmere and things like that. I don't know, it just feels that when you're over in the east they're trying to, obviously the land is not smart to build on with the liquefaction that came up, but it's like they're trying to push us out of that area to come over this way and speaking from a Pacific / Māori point of view, because I'm half Māori, half Samoan, because I know there are a lot of families who struggle just trying to live properly in the east. So

they are probably still struggling with heat and keeping the place warm and stuff like that. It's like they're just trying to push them out of their home and bring them to this side, but they might not even be able to afford it. At times it feels like we are just forgotten.

The contrast between wanting to move and wanting to stay is shown in the comments from Bill and Miriama. Both viewed the damage to their neighbourhood negatively, yet their ideal outcome differed. On the one hand Bill simply wanted to leave and move on, whereas Miriama wanted to see her neighbourhood fixed so that she could stay. These contrasting views were connected by their feelings of disempowerment; a belief that neither of them had control over where they would be living in the future. Instead of stating that they would stay or leave the area that they were living in, the future was described in disempowering terms which showed that their control over their movement was limited. While their ideal outcomes differed—moving into a more liveable neighbourhood was an ideal outcome for Bill, whereas making her existing neighbourhood more habitable was Miriama's preference—neither appeared to believe they had much influence over their housing outcome.

In comparison to Bill and Miriama's experiences, Jimmy's experience of relocation was ongoing and protracted. Here Jimmy talks of how he was affected as he frequently relocated for over six months from the summer of late 2011 through to early 2012.

Jimmy: I think it changes, it definitely disrupts your energy and changes how grounded you are with the earth, like if you're a bit scattered and you, because after the earthquakes I kind of came up all into my head and I was kind of freaking out. I was diagnosed with hyper-vigilance because I was just stressing out hard out. And I just kind of lost my faith and lost touch with the earth... And I think that housing has something to do with that, like being displaced and not being grounded, even just grounded in just having a place to go to, I think that definitely helps your day to day life and your, you know. I think it helps.

Jimmy found that by not having a house for a long period of time, he experienced feelings of dislocation and no longer felt grounded. The effect of frequently moving and living on friends' couches left him feeling as though he had lost touch with the earth and felt scattered. Frequently moving and not settling in a house for a reasonable length of time scattered his sense of wellbeing. When he eventually found secure housing, he then felt more grounded

and settled. Jimmy's experience shows how a sense of stability is developed when people are settled in a house over a reasonable period of time.

For some participants, repeatedly moving from one place to another provoked an exacerbation of existing mental health issues.

Suzie: February earthquake happened and we didn't know what had happened to it [our old house] for quite a while. Then we saw the pictures and stuff in a big pile and we thought, oh OK, that's our house gone. And just after that I guess there was lots of moving, I think I moved about six times and it was a little bit situational, like to do with things being propelled that way because of the earthquakes, and it was a little bit to do with the my own mental health stuff I had going on, and just not having ideal living situations sparking that, so I ended up moving on. After the earthquakes with a lack of housing around and having to go for things that were too expensive, or not ideal. I think we lived in Daniel's parent's garage for about half a year and then I went flatting because my mental health was up and down and wasn't good living in a garage, and that worked out OK and that was really cheap still. Looking back on it, it was really cheap. We were paying \$170 for a unit, a two bedroom unit which was awesome in retrospect.

The constant stress associated with being unable to find secure housing sparked mental health issues for Suzie. Living in her boyfriend's parents' garage appeared to provide some degree of stability, but it was not a suitable long term solution. Suzie's mental health only improved once she moved into a flat and the cycle of disruptive living conditions was broken.

These four examples of Bill, Miriama, Jimmy and Suzie highlight how stability over time in regards to one's physical environment—being comfortable about the location, not continually relocating, and having a secure tenancy—played a key role both in fostering ontological security. Underpinning the differences they experienced was the loss of ontological security due to the threat of forced movement being a common, and ongoing, possibility.

Some participants found that the dislocation associated with moving into a new area was made easier by becoming familiar with the community and geographical location. Naomi moved into a damaged neighbourhood soon after the February 2011 earthquake and she

quickly integrated herself with her new neighbourhood, which at the time was in a state of flux.

Naomi: We had nothing, we didn't know anything. The type of information we were getting just was so limited to your community so everything was by hearsay and then everything was, it was like the whole world had gone and everything is about you and your community. It was like 'who's got blankets? Who's got whatever?' It was more like that type of information being shared rather than talking about anything, like a lot of us didn't even see a lot of what the earthquake had done in town until ages later.

Becoming familiar with the community reduced Naomi's vulnerability because she quickly established social networks through which she had access to necessities, such as blankets. Forming relationships with people in her new neighbourhood opened up access to resources so that she did not need to venture out of her community for a few weeks.

Naomi: We didn't even think about it because you couldn't think beyond your home and your community, you just couldn't, what could you do? So it was just about immediate things. Like there was a guy who had apple trees and he knew that everyone was coming to get water at where we were so he came and told us to tell everyone he's got plenty of apples, if people wanted apples. I should have brought a notebook, I had a notebook and I was just writing down everything that people were telling me, because my memory is crap. I was writing everything down of where people could get apples. There was another woman who, she needed to move her plants and she was offering people to take her plants. There was just heaps of stuff going on, it just became real communal.

Embedding herself into new social networks was helpful as a way of overcoming the effects of dislocation and also to allow Naomi to locate herself within a new place and community. For Naomi this was achieved through connecting and interacting with the local community to the point where she described her living conditions as 'communal'. From this it can be said that connecting and sharing resources with neighbours acted as a form of capital and allowed participants get vital supplies, such as blankets and food. Furthermore, it served as a broader resourceful strategy to address feelings of dislocation. Becoming part of the local community filled the void of losing one's place and also assisted in the process of integrating into a new

space. Thus, developing interpersonal relationships fostered a sense of belonging and provided access to material necessities.

Other participants found that familiarising themselves to new physical surroundings and services helped them to adjust when they relocated to a new environment. For example, Bill considered transport to be his biggest issue when he temporarily moved to the other side of the city.

Bill: Well it did affect my studies because I normally take the bus to uni, so just not knowing what bus and that sort of stuff, just getting used to it all. Just, I guess it was transport, that was a big problem.

Bill's transport problems show how his feeling of dislocation extended beyond the home and affected his movement and travel. In much the same way that control over moving house fostered a sense of stability, so too did familiarity as he travelled. In order to feel comfortable with living in an area and community one needs to become familiar with the people and the area, and with moving around within the area.

However, adjusting to a new location and community was not the only way that relocation was addressed. Another way in which the students managed the effects of dislocation was through spending time socialising with close friends.

James: Because we moved centrally I was just a block away from one of my good friend's place, so I was pretty much around there most nights after uni and just unwinding or de-stressing or doing whatever socialising, just relating really.

James was fortunate in that he relocated temporarily into an area where his friends were already living. He found that his existing friendships distressed him as he adjusted to his new neighbourhood. While James's relocation moved him closer to his friends, others found they had become cut off from friends.

Bill: I've basically grown up in the east and moving to the west it was sort of hard to contact my friends from that side of town. So I guess it was just family that I had to socialise with at the time and it was hard to get across town to catch up with my friends. Couldn't contact them with Facebook, so no internet was a big social factor.

Bill and James show how existing social networks could be a source of emotional support to help ease the stress associated with relocating. However, since they were living in new neighbourhoods during the few months after the February 2011 earthquake, the opportunity to connect with friends depended on location, or required access to the internet, because of the difficulties associated with traveling during this time. Therefore, being able to connect with friends was largely the result of luck. Those who were able to visit people they knew regularly found that regular contact with friends made their transition to living in a new place smoother.

The issues of relocation and dislocation as described by the participants appear to resonate with the findings of Mileti and Passerini (1996) who claimed that relocating post-disaster occurred for a variety of reasons; two of which are symbolic attachment to a place, and the perception of risk. Attachment and risk were prominent considerations throughout many of the interviews, and these considerations were affected by forced movement as discussed by Miriama and Bill above. Miriama highlighted her symbolic attachment to the east by speaking of her desire to stay despite it being a damaged part of the city, whereas Bill, who was living in the same suburb, showed a desire to relocate by emphasising the risk associated with not moving.

Those who were parents found that the place where they were living would impact on their children too. Consequently, living in the same area as they had been pre-quake was to ensure their children were familiar with the area.

Dorothy: When I look at moving those are the sorts of things I'll look at, are there good bus routes there? Is it close to shopping, you know if you don't have a car. Close to uni, close to school.

The needs of children became a central concern for parents. Access to transport links, shops and living close to school became priorities. With the extra layer of responsibility and concern for children the housing options were reduced finding a suitable place to live became more difficult.

The next section details some of the factors related to relocation and instability, such as the participants' experiences as renters, their perceptions of their tenancies agreements, and interactions with EQC.

Tenancy agreements and EQC

The participants cited tenancy agreements as a major cause of the housing insecurity.

Tenancy agreements were seen as legal contracts that disempowered renters. All twelve of the participants who were renting properties discussed how tenancy agreements failed to provide stability. The resulting instability was caused by a number of factors, such as new landlords, the timing of contracts, the length of contracts and concern over tenancy agreements in the future. This is an on-going systemic problem which is related to the market model of rental homes in Christchurch and New Zealand.

Dorothy: When the first earthquake happened we had no power or water so we had to go and live with my parents for a week until it came back on. Same thing when the second earthquake happened we had to go live with them for two weeks, took twice as long for that to happen, but since then I've had two changes of landlords and my rent goes up continually so looking for somewhere new to live, the renting properties are just terrible. So the rent that I pay now, I've been looking for similar prices but they're \$100 plus extra a week for what we're living in. Now the flat just got sold again so we've just been given the 90 day notice to vacate the house. So trying to find somewhere else to live is just again horrendous.

Dorothy explained how her tenancy agreement did not always ensure stability because it became void if the property is sold onto another landlord. If the property is sold then a new agreement can be forced onto the tenants at a higher rent. The new agreement and the increased rent are both products of a rental market where landlords seek to make a profit by selling on their investment or increasing rent. Furthermore, Dorothy was recently asked by her latest landlord to vacate her property within a 90 day period, which forces her and her daughter to move into a rental market beyond her financial capabilities.

The effect of a market rental system is not so much an outcome of the disaster, rather the disaster has exasperated the insecurity which exists for many students during the summer months just prior to the beginning of the university year. The participants described how late summer was the period when many of the twelve month tenancy agreements began and finished. In an attempt to secure some degree of stability the students aimed to begin their lease during the January to February rental season to obtain a twelve month contract.

Jimmy: I realized that I couldn't stay at my mum's house because I didn't want to have to, I just, it was too stressful being at mum's house pretty much, and I didn't want to stress her out as well. So then I like went to, where did I go? I stayed at like my friend's house, in like, Cashmere or something like that for a couple of weeks. It was a good time because like her parents were out of the city so I stayed there for a bit. Then went to another mate's place in Merivale. So, like, the places that I stayed at weren't too bad, but I just had to, like, keep moving, because then I wouldn't outstay my welcome. Because I just wanted to set myself up for the next year. I wanted to leave that option to have a full twelve months lease for the next year. So I didn't want to get into anything that I would be stuck with. If I got into a place then I was stuck until the half way through the next year or something. So I was, I kind of did it to myself a bit, like, because I knew I needed to have a good place for the next year, for the uni year.

Jimmy explained how his couch surfing was prolonged throughout the summer months as he resisted finding a flat for as long as possible so that he could reintegrate into the normal renting cycle. The renting season not only affected those who had no place to live. Expensive set up costs for flatting, such as bond and rent in advance, caused problems for those with limited finances as they sought to secure a flat for the following year.

Zac: We, before this happened about two weeks prior, we locked down the five bedroom flat that I'm living in now with people from University Hall that I flatbed with, people who lived immediately around me at University Hall. So in a way I was kind of locked in with them and still in loop with them, so that was OK. The paying for the down payment of that five bedroom flat was a contributing factor to missing the final university hall thing. It was the lesser of two evils. You either secure accommodation for next year, you pay for the next one and hope they don't care but they went ape shit.

Zac described his predicament of having to choose between honouring his current contract, or securing his next. At the end of his first year in study he was late on paying his last instalment at one of the University's halls of residence because he was trying to secure his accommodation for the following year.

Many of the participants described how their current and past tenancy agreements resulted in a loss of agency and forced movement. Limited finances led to a loss of agency and increased stress. On the one hand signing a twelve month contract did provide some security and

stability, however, the process of moving from one contract to another on a tight budget meant that twelve month contracts were not as secure as they appear.

Even long before a renter's contract begins to wind down, insecurity can exist because of past experiences and a general distrust of bond retention. Sylvia highlights the worry and discomfort that she experiences even though she still has six months to go on her current lease.

Sylvia: So I still find it kind of a scary thing to be flatting. I feel as though I'm not really as prepared as I should be. I guess you could say that I feel quite insecure generally about it, and that's probably a cocktail of being insecure about insurance and that sort of thing, but then also insecure just because I am sort of always waiting for something bad to happen again that is going to change it all. I've come to expect really radical changes and when that doesn't happen that's really weird as well. I don't know, I still don't feel comfortable with it all, and it still worries me that I've got a year lease now and so that will run out at the start of January next year, and that worries me about what I'm going to do then. I don't know how easy it would be for me to find a flat.

None of the participants described their tenancy agreements in a positive light. One could assume that a tenancy agreement provides security, and no doubt it did for most of the students, however, with the fluid nature of housing in a post-disaster environment, stability remained precarious. A tenancy agreement could become void for a variety of reasons within a short time, and without warning. Thus, the supposed security which it should afford tenants could never be guaranteed and since the threat of forced relocation remained a very real possibility, tenancy agreements failed to provide security to the degree which it would if it was not for the post-disaster context.

The participants often talked about the rental prices in relation to market forces and therefore offered a structural critique. While the student loan and student allowance system were cited as being reasons for limited money, the high cost of renting was seen as a systemic issue which was aggravated by the earthquakes, rather than caused by them. The way in which the students were disempowered by the market left them feeling helpless and critical of the rental system. High prices were not so common for those who had direct contact with the landlord, however, when the participants were dealing with real estate agents, sudden price increases were more likely to occur. Those who attempted to question the prices, or voice their

concern, found that the high rent was justified as being an unavoidable reality of the economic system.

Sarah: It's just sort of, like it's not third world and I feel really, really sort of fussy to complain in the climate of Christchurch because there's so many people that are so, so much worse off than me. But at the same time I am paying more in rent than I used to pay for a really decent house, and when we've continually raised these things with the real estate folks they have said to us 'feel free to move, we can rent it tomorrow'. So you just feel like, well shit, what am I meant to do?

Sarah had only migrated recently to New Zealand so she had no family close by and she also had children. Furthermore, housing insecurity was not something she had experienced before.

Sarah: I mean, before the earthquakes it's like well we're a quote 'professional family', we've got excellent recommendations, and I never would've—if a house that I liked had gone to someone else I wouldn't have panicked, I would've just thought 'well the right house is going to come along, we're great tenants, we'll find—we'll eventually find a good place.' And with this it was oh shit, oh shit, oh shit, oh shit, I've got to take something.

Sarah found that what had ensured suitable housing in the past—status and cultural capital—was less effective in post-quake Christchurch. This resulted in lowered expectations and living in unsuitable housing. Similarly, Naomi found herself priced out of the rental market.

Naomi: It took us a very long time to look for a house because we would apply, go look at houses, even ones for dogs. It was hard. I don't know if you're allowed to but there are two houses that we looked at where the houses went up. The rent, we were called back by the agents, or the managers, the property managers, to say that the rent has gone up. They changed it and then asked us if we were still interested, and we were like 'oh, no'.

Josiah: They just kept upping it?

Naomi: There were two houses that we looked at where the price went up. We put in an application and we were going to go see them and then they called us because we had an appointment booked and said the price has gone up, the rent has gone up to, what

was it, 20 percent, yeah, 20 percent and then we said no. We said don't worry about the appointment then, so we didn't actually go and see either of those two houses when the price went up. So we've been at this house now for a while.

The rental market was perceived by the participants as being a money making venture rather than a system designed to provide people with their needs. The examples provided show how the prices quoted could increase without warning. The high price of rents shaped the movement and agency of the participants by restricting their options even when they were well organised.

Zac: I'm pretty sure I'm the only one who got evicted in the last two months on financial grounds. So it keeps me out of Ilam apartments, so I've been trying to find flats right now at the moment and I've found a flat group to go in with, but I haven't been able to go with the flat group that I'm with now, we haven't been able to find a house suitable. Prices here have skyrocketed and we are trying to keep it low and he's basing them on house prices now because he can get a lot more for it now. So I don't think it's really fair considering we are family as well, but I guess if you want to make money.

Landlord power was considered to be a major issue by most of the participants. In comparison to the critique of rental agents, which was overwhelmingly negative and focused on structural issues, the critique of the landlords was generally positive and was focused on their individual behaviour. It appeared that having personal contact with the landlord provided a connection with someone who held power over them. In contrast, even though the rental agent did have personal contact with the participants, this was seen as a purely business transaction and one that was primarily an economic relationship. For those participants who held a high level of trust and respect towards their landlord, they still felt an underlying mistrust of the socio-economic backdrop and assumed that their housing stability remained precarious.

Lisa: We were really lucky in that we were actually formally told by our landlord that 'we're not going to put your rent up, there isn't going to be an issue with that and there's no issue with rolling it over at the end of it or anything'. So we didn't have an issue around that, but the impact of what they were seeing, I knew that couldn't carry on for any length of time because of the market forces going on in the city. I couldn't do it if it

was me. You had a choice between a family for 300 bucks or having somebody else in for seven or 800 bucks, you know. In fact they moved out into another property and have let now, I believe, the whole thing out to working gangs and stuff so I think if we didn't jump then we might have been pushed out.

Lisa had a good relationship with her landlord and her rent had remained reasonable, however, it was the 'market forces' that Lisa could not trust. She felt that over time the *good* landlord would inevitably become the *bad* landlord.

Emily also describes how she and her family have been 'lucky' to find a landlord who cares about her welfare. The image of a landlord who understands and cares about their tenants' needs and problems is presented as an exception to the rule.

Emily: Yes, I heard about it through a friend, a friend of the family, because they get their paintings framed there and they heard the framing man was thinking about putting it in the paper and they said 'oh, before you put it in the paper I know of this family and they are desperate and they live in these horrible conditions', so they stepped in there and pleaded our case and they were really nice and they let us have it really cheap. It's \$260 a week, but they could get more than that. I guess they felt sorry for us. It was actually nice to get landlords that empathise with the people who are living in their property, so we are very lucky. I think it is all about who you know.

While these excerpts are positive examples of landlords, they were not the norm. For example, Emily also experienced an incompetent and thoughtless landlord. Here she describes another landlord she had dealt with before she found her current landlord.

Emily: But Fletchers came around and said that the landlord should have a heatpump, because they were shocked that a baby was living in a house with no heating, but the landlord didn't want to do that even though it was going to be free. She'd never been a landlord, she was just a lady that freaked out and left us with the earthquake mess and all her stuff there so I guess, yeah, she didn't understand the processes of actually being a landlord and what she's entitled to.

Like Emily, Sylvia struggled with her landlord in the immediate aftermath of one of the major earthquakes.

Sylvia: They just red-stickered it and we weren't allowed in. It was really difficult at the time, and I guess because our landlord was a British guy and I don't think he was based in Christchurch, and also, we didn't have that much communication with him because we were subletting.

The experiences of Lisa, Emily and Sylvia show the value of having a competent landlord. Maintaining communication with them following the earthquakes was crucial because they act as social capital; either negatively or positively, and sometimes both.

While there were some good experiences with landlords and some bad ones, nearly all of the participants spoke negatively about landlords in general. Often the participants would make vague statements about landlords' behaviour and reference the media, or they would talk about the power differential between themselves and landlords.

James: I guess for me the real sad story is the people who own rental properties who get away with charging exorbitant prices. I mean it's a natural disaster and people are profiteering from it and for me that's really fuckin sad. Yeah.

Despite living with his parents and not having to deal with a landlord, James still considered the unequal power relationship between the landlord and tenant as being a major concern. Similarly, Silvia explains the power difference by highlighting the negative cultural capital that students suffer from when they try to find rental accommodation.

Sylvia: Yeah, and it's really difficult when—why would you want students? You just don't seem as credible or as safe for a landlord, and landlords can just choose, they just have so much power now that they can control rent prices and gear them towards certain people anyway. So that excludes you automatically because you can't afford them, and then even when you do apply for one that you can afford, you're just at their mercy.

The feelings of disempowerment that tenants faced in an increasingly expensive rental market were both systemic and discursive. The effect of Christchurch's reduced housing stock was compounded by discourses about student behaviour. Since there was an oversupply of tenants the landlords were perhaps more likely to make quick judgements on whether a prospective tenant would be a good or bad tenant.

Emily and her husband were both students and she echoed Sylvia's point about students being viewed as undesirable tenants.

Emily: Yeah, you just have to, I always make sure that I put that I'm a social work student and not just a student. I emphasise 'social work' and 'nursing student'. Yeah, you've got to emphasise these points.

Emily attempted to overcome the negative stereotype attached to student renters by differentiating herself as a social work student.

While the students who were renting felt disempowered, homeowners also felt marginalised, especially when they had to deal with the EQC.

Rachel: I own my own home which I've owned since 2009 and it was damaged in the earthquakes. After lots of toing and froing with all the people from EQC and insurance I moved out in April this year. I was told it would take seven weeks of repairs and they were going to re-pile my house, re-level it, re-paint it, re-jib the bathroom and adjust a couple of tiny cabinets and things like that. Earlier I was told by other people it would take at least twelve weeks, by other people, but no, no, they were adamant it was only going to take seven weeks. So on that basis, because I had \$20,000 insurance money under my policy to move out for temporary repairs, but I had to stay close to schools because of my daughter. I live in North New Brighton, there is virtually no accommodation in the area whatsoever. So I chose a motel complex and basically had to keep, as the repairs went on for longer and longer, had to keep on figuring out how much money I had left. Dealing with insurance, dealing with the people, did they even have room for me? Where else could I go, especially when I was coming up to the 16th week when I was virtually, it was \$170 a night in this place. Hoping to liaise with everybody to see if I could stay there because I could have gone and stayed with family, but it would have been sleeping in the lounge type thing. So it was very stressful, not knowing how long I could stay, would I have to change apartments, would I even get in anywhere?

Rachel's experience shows how homeowners faced a number of problems. EQC's estimated timeframe for repairs was seven weeks, yet it took more than twice that time before she and her child were able to move home again. The insurance money was used during the 16 weeks

on the only accommodation she could find which was suitable for her and her child's needs. Poor communication and misinformation meant that running out of money could result in having to relocate again. The threat of relocating was not too dissimilar to the experiences of renters who had to move when their tenancy agreement drew to a close.

Searching for Stability

The outcome of perpetual relocation was the constant search for stability. The participants discussed a number of strategies they employed, or planned to enact, to reduce the likelihood of having to relocate. Many viewed renting as a reason for their instability and looked for ways to reduce their instability and foster security. For several participants, the most desirable way to find stability was by purchasing a house—two of whom did. While for others, less conventional means, such as buying a boat were their preferred way of reducing instability.

Suzie: I think it was always a sort of plan because I have been saving up since I got my first job when I was 16, you know, just for a house or to go travelling, or maybe both, and yeah putting money aside. My parents had a house and we loved that because I painted my room bright pink when I was 8 and then 3 years later I painted it bright purple because that's cooler when you are a teenager, haha. Just being able to do that, I found that to be really important, but a lot of this mental health stuff I've had to deal with has made me feel really unsettled, just over the last 10 years or so, or however long I've had it. I just haven't felt comfortable staying in one place so I think that the earthquake has definitely, in some way it's made me more settled about settling down, I don't know. Do you know what I mean? Um, it's kind of overridden that unsettled feeling, and it's a relief to say 'yip, we've done it, we're here and we don't need to worry about it.

In this excerpt Suzie mentioned how owning a house provided stability and made it easier to remain in the one place. She noted how the earthquake changed her preference of settling down. After the earthquake settling down became a priority as she sought to override her unsettled feeling. Suzie acknowledged that owning a house had been in the back of her mind for a long time, but describes the earthquakes as making her 'more settled about settling

down'. With ownership came a feeling of relief that 'we've done it, we're here and we don't need to worry about it'.

Suzie highlighted how owning a house provided agency over her surroundings. She recalled her youth and how her parents owning a house afforded her the opportunity to alter her surroundings. As a result, house ownership for Suzie is linked to stability, and that form of stability brings with it a degree of freedom. The effect of the shifting and unstable ground, as well as experiencing regular relocation, appeared to push Suzie towards finding stability in house ownership so that she could regain agency over her movement and would not have to move house again in the near future.

The benefit of buying a house extended beyond geographical and emotional stability; buying provided more control over the structure of the house and therefore physical safety.

Lisa: I don't think I'll ever live in another brick building ever again because they don't move. Now I'm in a wooden villa so I'm well happy with that. It can make as much noise as it likes, so long as it's not coming down. Roof tiles, I wouldn't move into anywhere that'd have roof tiles now, you know. So that kind of cuts your choices down to what you're doing. It was, oh it really, really was, when we were trying to decide whether we should move or rent again, or whether we should look at a buy in was looking at the prices going up for sale and being wiped off the market really, really quickly and that started in 2011 before I finished my studies because we were already starting to get worried about whether we were going to be able to afford to do that, but we were eventually [able to buy a house].

Here Lisa discussed how house ownership ensured that she no longer had to settle for a house which did not provide her with a reasonable level of security. A wooden house provided a sense of physical safety, whereas a brick building or roof tiles was perceived as unsafe. The price of buying was an initial concern, however, the desire to live in a house that provided physical security outweighed the economic cost.

Other more nonconventional plans were also put forward in the search for stability, such as buying a boat to live on.

Naomi: But I think housing, I would personally buy a boat, live on the boat. I've been looking at boats because I think the housing situation is shit. A lot of the nice old

houses are going now and they just have these prefab, there's more of those and I'm not really keen on those. I'm really keen on living on a boat. I mean you can get a really good boat, good steel ones, for under fifty grand and that's less than a deposit for a home. I could get that and live on a boat while I save for a deposit for a house then that's fine, but I wouldn't buy a house and I don't think I'll rent beyond, by 2016 I should have a boat and live in a boat for a while. I don't know why anyone would want to live in a house in an earthquake place.

This excerpt from Naomi reiterates Lisa's key concern, which was a loss of faith in the stability of the ground. Naomi considered living on a boat to be a solution despite Christchurch's port being well outside of the central city. Life on a boat offered a way of remaining in the Christchurch region, while not being subjected to the possibility of future earthquakes in Christchurch. Naomi considered the contemporary housing that exists in Christchurch as aesthetically unattractive, and saw living on a boat as a favourable alternative to the prefab houses which dominated the housing stock in Christchurch since a lot of the 'nice old houses' were destroyed in the earthquake.

Suzie, Lisa, and Naomi's search for stability highlights the issues faced by people living with the pressures associated with a lack of control over their housing. The chaotic movement began with the first earthquake, but continued to be a threat after the ground had stabilised. These strategies exemplify the search for geographical stability in the face of ongoing and chaotic movement.

For other participants, planning to move out of Christchurch was seen to be their best option in their search for housing stability.

Emily: If we had money I would be happy to pay more money on rent if it meant we were in a better home. A warm and dry home. I guess that's why we tried to think, I mean first time around at uni I didn't really think about a career. I didn't really know what I wanted to be and this time around I'm more kind of career driven and trying to find something that will generate a decent and steady income. That's why I'm doing social work...not that they really get paid much money, but it is a job that's in high demand and it's something that you can do overseas as well. So we're thinking of moving and maybe I can do social work in Melbourne or my partner, he's from [a European country] so we are thinking Europe.

While Emily planned to move overseas, relocating within New Zealand was an option for Jason.

Jason: I don't have the savings. There's no way I can get a 20 percent deposit on a house. It's to the point now I'm having to think about moving to a different city to do my PhD, just because of rent prices. I can get a place in Dunedin cheaper than I'm currently paying, and it's nicer. Although their department isn't ideal for what I'm probably going to be studying, it's not awful.

Emily and Jason both struggled to find housing that was appropriate to their needs, and within their budget. For Emily, she and her family could not afford to live a place that was warm and dry. Moving to Australia or Finland was considered a solution to her housing problems because those options offered her family the opportunity to live in a home which would not be a threat to their health. Similarly Jason, who had been renting a small room in an unsuitable house owned and occupied by a retired couple, believed his housing options would improve by moving from Christchurch to Dunedin. Although a shift to Dunedin would be less than ideal for his future study plans, better housing options meant that moving out of Christchurch would be beneficial. Jason's future plan showed how benefits and downsides were constantly being negotiated; space, price, environment and study influenced housing decisions in his search for housing stability.

The sub-category of searching for stability presented here resonates with the capability approach (Sen, 1993; Zimmermann, 2006). Sen (1993) defined *functions* as things that people do or be; in this instance Emily's function was to provide a healthy and habitable home for her family, whereas Jason's function was to live in a house that provided a level of comfort he deemed fair for the price. Sen then defined *capabilities* as a combination of 'personal characteristics and social arrangements' (Sen, 1993, p. 33). Emily's capabilities included the option of working overseas, as well as the desire to travel. For Jason, his capabilities included the option of studying in Dunedin, as well as the cheaper rents available there. Together, the combination of functions and capabilities made moving out of Christchurch an attractive option for both Emily and Jason.

Recreating security

The second core category to emerge from the data was recreating security. The participants' strategies were varied and contextual because the risks, threats and concerns differed. Some participants had to deal with feelings of physical insecurity from living in damaged houses and neighbourhoods that had changed markedly after the earthquake. Others found that their perception of security improved by creating a sense of belonging in their new neighbourhood through personal relationships and community groups. An additional issue faced by some of the participants was their parental responsibilities and the added stress that these entailed.

Recreating security and recreating belonging

Recreating a feeling of security in a damaged house was a primary concern during the aftershocks period. Some students who were living in an unsafe house with their family recreated a safe sleeping environment by all sleeping together in the same room. The communal sleeping area was usually the lounge or living room because it was considered safer, or closer to outside areas.

Sarah: That was the biggest deal for my mental health, was trying to protect my children. And knowing that in some ways that was out of my, out of my control, but we spent probably, oh I don't even remember now, probably a month after February, all sleeping in the lounge together on mattresses on the floor, and I don't know what it is with, we all had the same instinct, and I don't know why, but the idea was to not be in the bedroom, not be able to get out of the house, well I know for that the lounge had access outside, so there was, it was, and of course because it was Summer in February, you know, it was warm. It was sleeping where we could get out of the house and all be together, and that was, it was huge in fact, I think well it's probably three years on? Yeah, my son still, who is now nine, struggles to sleep alone. He just, it just doesn't feel safe.

Sarah described her family's communal sleeping arrangement as instinctive. For her and her family, sharing a room became an empowering act because she felt that protecting her children was otherwise out of her control. She also notes how her son's sleeping patterns

were still affected three years after the major earthquakes. Sleeping in the lounge was a way to give and receive support.

Lisa: The aftershocks, we were really scared, we didn't want to sleep up stairs because that would have been too scary. We wanted to sleep downstairs in the lounge, but if the chimney had have gone one way we would have been quite badly hurt. So me and my husband and my daughter, we were sleeping in a really tiny little room, but that was like camping so it was all right. That was good fun. So we were fine.

While Lisa and her family had to sleep in the only room they felt safe in, Miriama and her siblings shared their lounge.

Miriama: Me and my sisters, we're all pretty close in age so we were kind of like bonding. After the first night we all pretty much did marae styles and slept in the lounge together and stuff. I think it was really tricky and I felt so sorry for my Nana because we were without power and water, well we were without power for three weeks.

Sleeping in a shared room was described as 'like camping' or 'marae styles' by Lisa and Miriama respectively. A marae is a Māori meeting house which acts as a place for communal dwelling. Part of the marae can include a wharepuni which is a temporary structure built for visitors to sleep in (Walker, 1992). Using those terms to describe their sleeping situation frames it in a positive and empowering light. The term *camping* carries with it positive connotations, such as choosing to go on holiday, rather than being forced into unsatisfactory conditions. Similarly, *marae styles* was used by Miriama which frames their sleeping situation in with a culturally empowering practice. This shows not only how communal sleeping was used, but also how the participants framed it. Thus, the act of communal sleeping and its framing acted as a form of respite from their physical insecurity during a stressful period when they felt insecure about the strength and integrity of buildings.

Peace of mind was also achieved by making a conscious effort to become confident that the house was structurally sound. Often the participants' houses had visual signs of damage such as cracks or gaps in the walls. Even though this was usually superficial damage and the stability of the house was not compromised, the visible damage created feelings of unease.

Inspecting and discussing the reasons for the superficial damage reinforced confidence in the structural integrity of their home.

When participants moved into a new home, piece of mind was gained by checking the structural integrity of the building.

Jemma: I think the worst part was that whatever temporary position you were in, you always knew you'd have to go somewhere, you weren't quite sure. The house itself, you wanted to be assured that no lintels or joists are off and the roof space, I'd actually climb up into the roof space and have a look. Having to do that, it's just such an extra strain. You're already dealing with the stress and moving and you just don't have any extra time for yourself.

For Jemma, who lived in five different locations throughout 2011, each move required a thorough inspection of the internal framing of the house to ensure its integrity. Frequent moves caused Jemma to feel insecure about her safety because she was constantly living in unfamiliar houses. Adapting to a new house required a period of a few weeks before comfort was achieved, by which time the participants might be required to move again. The process of adjusting to a new house was somewhat similar to moving into a new suburb and the need to become familiar with a new neighbourhood. Both required becoming familiar with new surroundings, before they then became comfortable.

Sarah and Lisa describe a similar experience, however, they had their children's needs to consider. As a result, Sarah and Lisa's sense of security was only obtained when their children felt secure.

Sarah: It was a long process for them to believe that the house would be safe and we had to do a lot of walking around and looking at the structure of the house and the doorframes. Like I remember when initial kind of, people coming door to door and making sure your house was okay and the chimneys were gone, but clearing away the bricks and stuff, he said one of the, one of the things that you could tell in the older houses is if the doorframes, the door jambs are still sort of fixed and not come loose, about how sturdy the house has held up. And all of our, I mean the doors weren't shutting in properly but the frames themselves were intact and so we're having to explain that to the kids. It was a big deal for them because they had been so unsafe

where they were in February and because they had seen so much that little children shouldn't see, shouldn't, I guess children around the world see that stuff all the time but ideally you want to protect your children from that sort of trauma. It was a really big deal and that was a big deal for them, moving as well, having to walk around the house and have a look with them and showing them, looking at the cracks and, you know they're, they're like, like the adults, they're wee professional assessors of these things, and they know what looks safe and what doesn't and, that, that was the biggest deal for my mental health, was trying to protect my children.

Sarah highlighted how her children's wellbeing affected her mental health; both of which depended on feeling safe within their house. Since her children were in the central city when the February earthquake struck Sarah took steps to minimise the effects of that traumatic day. This process of looking, seeing and talking was also useful for Lisa who was concerned about the structural integrity of her house.

Lisa: My partner is a builder, he's done his HNC in building and he's done a lot in carpentry. He's done a lot in building theory, if you like, and done a lot more of it since. I think that helped me because he was able to say 'that wall might of cracked, but the way that it's gone, it's gone down a mortar so it's not going to move anymore'. And that made me feel a lot safer just staying in the house because he was able to convince me that the whole thing wasn't going to come down on top of us, and my dad's a plasterer as well so I knew that the cracks and things were superficial and didn't mean that the integrity of the building had gone. So I guess all those things helped a lot really.

Lisa's experience was similar to Sarah's, however, she was able to draw upon the knowledge of family members for reassurance. Therefore, depending on the context family helped to minimise stress, but with parental responsibilities, family could also create stress. This tension between creating stress and minimising stress was a common experience of the participants and extended beyond the family to include wider social networks, such as their neighbours and community.

The task of cleaning up the immediate mess often became a communal project. This occurred immediately after the major quakes when houses and properties were damaged and needed to be cleaned and/or repaired.

Dorothy: We all helped each other clean up, or helped each other move out because it just four houses down the house was completely destroyed and pictures and books were down, and then the house next to that was also the same.

In addition to cleaning up the inside of homes, others, had to clean up the liquefaction.

Miriama: We were like 'oh, we have to do the clean-up again' because throughout that year we had it again in June and then September and then Christmas Eve. Every time we had a big shake again the liquefaction would come up just as much as it did in February ... So I think that's when it started getting stressful. Then when the next big quake would happen, then it was just you know, we'd just had enough of it and that's when we felt like we couldn't be bothered doing anything anymore. So yeah, I think what kept us kind of going was that we had very supportive friends and family from church and the community that came out and helped. That really helped us especially on the Christmas Eve one, because that was pretty tough.

Dorothy and Miriama were both living in the eastern part of the city and their suburbs sustained a high level of damage. For Dorothy, who was living in a block of flats, her clean-up was indoors and she helped her neighbours. Whereas Miriama talked of how her family's property had to be cleared after each major earthquake. Repeatedly cleaning up the liquefaction became tiresome and stressful, especially on Christmas Eve. Dorothy and Miriama described their post-earthquake cleaning as neighbourly events and they were able to draw on the support of the people living close by. Using existing social networks for assistance, as well as helping others, such as friends, family and people from church resonates with existing literature. For example, Quarantelli (2008) claimed that helping one another is a common response in the immediate aftermath of a disaster.

An unsuitable house

Since the earthquakes caused so much structural damage to the houses in Christchurch, many of the participants lived in houses that were susceptible to dampness and coldness. This posed a risk to the students' physical health. The dampness and coldness was a long term problem, however, it was cyclical and was only an issue during the cold and wet winter months. Living

in housing that had these problems led to physical and emotional health problems. Furthermore, coldness and dampness was exasperated by overcrowding.

Dorothy: So trying to find somewhere else to live is just again horrendous, but also for a while we had some of our relations coming and staying with me because their house was being fixed for eight weeks so I had extra people in my lounge which is very small, very tight.

Josiah: And when was that eight weeks?

Dorothy: I think it was in about April this year, so it was just until their property was being fixed, but they couldn't find anywhere to stay, there was four of them so we had six people in my little two bedroom flat... Yeah, a little bit colder and then the condensation, there was a lot of condensation and the potential for a lot of bugs, but we were all very wary of that. We tried to be respectful to each other, something that doesn't always work.

In this excerpt Dorothy explained the effect of having six people live in her two bedroom flat when her family came to stay. Health problems, such as the flu and common colds, were difficult to prevent with the condensation and the cramped living conditions. The time of year when Dorothy's family came to stay was autumn, which can be a cold and damp time of the year in Christchurch, and the conditions often result in condensation. As a result of the dampness and coldness respiratory problems were a major concern, particularly for those who were parents. Their children were more vulnerable to sickness during the winter months, and this in turn led to the participants becoming stressed and experiencing feelings of guilt.

Emily: My husband's fine, but my son still has this rattly chest problem. The doctor said he'd grow out of it but still, you know. I live in guilt knowing he got sick as a result of where we've lived, but there was nothing we could really do to change that so we want to move, but I don't think we'll get a better house for the price we can afford, both being students.

Since the coldness and dampness of the house affected the health of her child, Emily was left feeling guilty, especially since the health issue appeared to have become a long-term illness. This highlights the way in which parents felt accountable for the health of their family after the earthquakes, even though the causes of the health problems were out of her control.

Structural issues, such as a limited housing stock pre-quake, depleted housing stock post-quake, damaged housing being repaired slowly, and limited welfare assistance contributed to the houses being difficult to heat and keep dry. However, despite these challenges the participants with children felt guilty and assumed a large portion of the responsibility.

Since most of the participants could only afford to live in houses that were earthquake damaged, they were susceptible to mould and dampness.

Sarah: You know, and the doctor's telling me 'well don't touch it', [the mould] but it's impossible not to, I've got to wipe it off the windows or it gets worse. And I've got to get – I mean I got these plastic boxes for my clothes to try to keep them in, but even sealed in a plastic box they get so cold and damp, that the clothes at the bottom – I was just trying to do some clean out for the change of seasons – and they're all white! It's like, ugh, this is just disgusting.

Sarah's struggle against dampness and mould was an ongoing battle. The effect of the mould included respiratory problems. Furthermore, the mould damaged clothing over time and both of these issues were unavoidable. The seasonal aspect to the dampness and mould allowed some respite during the warmer months, however, minimising the problem during the winter was costly and ultimately ineffective.

Mould was even more problematic for those who were living in a severely damaged house.

Emily: The other thing that annoyed me about that was that they provided an industrial sized dehumidifier to try to fix the damp problem, but they weren't aware of the damp problem that was under the house and we had to pay all the power bills for all of that, and no one seemed to, not matter who we called up about, you know, why should we have to pay phone and power and rent if we have to move out? Then we had to pay that at the other place as well and pay the power that the builders were using as well. And after we had to throw out our bed and most of our clothing and most of our bedding, because it was all mouldy including all our drawers of stuff.

Emily's problems with a mouldy house was more severe because of the structural damage to her house. She also noted that 'we got a flat and that flat turned out to have black mould and raw sewerage under the house'. Her mould problems were the result of liquid under the

house, and while she lived with the sewerage and resulting mould, Emily had to pay for the power used by the industrial sized dehumidifier.

The cost associated with heating substandard housing was a common issue. Most of the participants were living with heatpumps or electric heating which cost a lot of money if the house was not adequately insulated.

Dorothy: I've got a heatpump so during winter the heatpump goes 24/7 but it's always kept at seventeen and it does keep the chill off, and so long as the house is dry then the whole house is kept nice and warm. It's kept at that nice temperature, but I've noticed that the days that I don't dry the windows I notice that the heatpump has run pretty much all day and the windows are still wet when I come home. So it's a matter of keeping on top of the condensation and the cold, but prior to the earthquakes we didn't have to have the heatpumps on all the time, but now we do. I've noticed that and the whole block of flats because there are four of us and all four heatpump's are going 24 / 7 through winter now.

The most effective remedy to the damp and mouldy housing was, as Dorothy explained, to use heaters, often non-stop. The obvious problem with this was the cost associated with heating a poorly insulated house. Drying the windows by hand was an effective way to minimise the build-up of moisture through winter.

Dorothy: The cost is the thing, so every morning before I go to work I go around the windows. I've got a special thing for the windows where if you run it up the window all the water goes into the handle. I dry all the windows every morning so it helps to keep the house nice and dry and warm during the day.

Keeping the house dry was an ongoing challenge which was helped by making small changes. Although these changes would not be considered major lifestyle changes they compounded other issues and served as a reminder of their new reality. Sarah used the sun to help heat the house. This was a way of minimising the power bill.

Sarah: Your heart just sinks when your power bill comes, because you, it's not like you're warm with those things, but at least it's doing something to take the edge off. So yeah we've been doing, we've been doing those sorts of things. And the same thing, kind of, unless it's pouring rain, opening the windows and trying to get the sun, you

know, but different parts of the house don't get sun at different times, and it's just, it's sort of, the way I deal with it because I work from home and am home a lot is I just try to follow the sun around the house. So I just sort of, like the kitchen gets, finally by like eleven it's quite sunny and there's this wee spot in the kitchen and I'll just sort off shut the doors off, and put a wee heater in there and try to do some work there. And I'm really grateful my kids go to school where everything is heated, and you know they're, it's probably why they haven't really been that affected by it, because they're, like sort of you were saying recently, they're out of the house for most of the day. And I get out and I walk a lot and that sort of thing.

Sarah explained how the power bills were excessively high while she was living in a partially damaged house. In response to the high cost of heating she stayed warm by following the sun around the house and partitioning off lived in areas so it was easier to heat those. Sarah also used exercise as a way of keeping warm.

Since most of the participants found the cost of heating to be excessive and beyond what they could afford, other methods of combating a damp house was used. These strategies addressed the problem, however, they also became tiresome and contributed to the many other issues which were creating stress. The preventative measures kept the dampness and mould under control, but for these strategies to maintain their effectiveness they had to be repeated daily and modified depending on the weather and season.

Naomi experienced similar heating issues and in addition she was without power for a few weeks after the February earthquake.

Naomi: Heating was a huge problem through winter...loads of thermals on and we made use of all the hot water bottles we could find. We just kept moving during the day we didn't sit around, we went and done things. Like either helped out people or biking.

These strategies were cheap and effective methods of keeping mould, dampness and cold under control, however, they were merely preventative measures which had to be performed on a daily basis. This constant battle served as a reminder that their health was constantly at risk due to their substandard housing. Rather than being the refuge that a house should be, the participant's houses became a threat to their wellbeing and negatively affected their

ontological security. As a result, in order to make a home habitable, some participants found it was best to spend the least amount of time as possible within their house.

Loss

The third major theme to emerge from the data was loss. Loss was experienced directly from the earthquakes which included the loss of buildings, belongings, daily necessities and clothing. In addition to this, the participants also spoke of how they lost their city and living environment.

Loss of belongings

Those who were living in the central city red-zone lost much of what they owned, either temporarily or permanently. This usually occurred directly from the earthquakes and during this time recovering belongings was difficult. When the participants lost their clothing, they tended to go to family or friends for support, and only if help was needed beyond what those networks could offer did they go to the community respite centres for assistance.

After the February 2011 earthquake Sylvia lost access to her central city flat and moved back to her parent's house. Since she had no change of clothes she then reached out to her local community recovery centre for clothing.

Sylvia: When we went to Linwood College the next day because that was close and I used to go there and I felt comfortable and they gave us a grant so that we could buy food, and that was like \$150 or something. We qualified for that so that was kind of good because we were able to pull that together with my parents and give something. And they also gave us a change of clothes and stuff, so they gave us things that would be helpful for a short period time frame, but we couldn't really get anything after that... I just had like pyjamas for two weeks, haha. So, we made use of things like Linwood College and places where you could go to get help from them, short term help, but because we didn't have anywhere to go, and I worked at The Press as well so I lost my job, and we moved back in with my parents, so me and the other person who I was in a

relationship with at the time moved in there, and we were in there for quite a while, like, just until we thought we could get some money together and then be able to go flatting again, but there was just nowhere to live for quite a while.

Sylvia described the comfort she felt when she returned to her old high school where Civil Defence and NGOs had set up a recovery centre. She was able to find some clothing and also some supermarket vouchers which fulfilled her needs for a short period of time. A possible reason for her sense of comfort was that she returned to familiar surroundings which provided her with the ontological security that she had lost following the earthquakes. The recovery centre provided clothing and short term provisions, but perhaps more importantly a comfortable environment during a stressful time.

Seeking comfort was a way for the participants to manage their loss. Most of the time family and friends were able to provide assistance.

Jemma: The first few months were, I mean the only possession you have is a bathrobe, so obviously I had a lot of friends that donated clothing and various pieces. Fortunately, David's glass prescription was close to mine, it was his old prescription that matched mine perfectly, so I could see, I had glasses for a while.

Fortunately Jemma's partner had a spare pair of glasses that matched Jemma's prescription. Furthermore, clothing was donated by friends so that Jemma could make it through the few months after the earthquake before she could recover her belongings. Drawing on existing resources through networks was a way of temporarily overcoming challenges. These responses from the participants mitigated the loss of everyday items.

When the participants with children lost their house and their belongings their needs were usually more acute. Everyday tasks became difficult to carry out because of a loss of routine and limited capabilities.

Emily: Because everything was closed and we had run out of the building with nothing, we were just trying to get out of a six story apartment block when there's an earthquake, we were ripping up and sello-taping the sheets to my baby because we didn't have nappies. You don't think 'oh, I'll just pack this bag before I run out of this house that might fall down. It's quite crazy when I look back on it. But yeah, you don't know who you are supposed to go to for help.

Emily, who lost her central city apartment in February 2011 earthquake, discussed how changing her baby became a struggle because they had no nappies, nor were they able to buy any. The loss of common objects, such as nappies, meant that she had to be creative with sheets and tape when the shops were closed and travel was limited. Looking back, Emily remembers the time as 'crazy' and highlights the feelings of helplessness and disorientation. Being resourceful, while not knowing where to seek assistance, underscores the unstable environment immediately after the earthquakes.

Resourcefulness exemplified the response from all of the participants. This process often began by seeking the assistance of close friends and family, however, others drew on public resources. For example, Sylvia returned to the community to replace her clothing. She found the place to be comfortable, because a previous connection made it known to her; familiarity also appeared to be why the other participants used their close personal support networks.

The participants also highlighted the importance of their damaged belongings. Possessions and items which had sentimental value were not only deemed irreplaceable, but their loss equated to a loss of memory because of the meaning attached to them.

Miriama: It was a week or so before that that we'd moved to a house in front of her and we got everything sorted and stuff and then the earthquake happened and everything just came up everywhere and it went in the garage for both houses. It was all around the back of my Nana's place and it was, oh, it was terrible. It was flooded. Everything in the house had fallen on the ground and it was pretty sad to see everything just kind of fallen down, the clean-up I think was quite hard to, for me... My parents just seem to collect things, haha, so we have a lot of stuff and it pretty much filled up both garages and we pretty much lost everything that was in the garages. Heaps of things were like, because we still had boxes and stuff that we hadn't unpacked because the house was just far too small to like put things in, so we had some belongings that we had since we were little, was kind of destroyed.

Miriama explained how her family's living conditions were already cramped after one earthquake, and then the next major earthquake damaged the poorly stored belongings. Objects that were lost or damaged were generally considered to hold worth when they had emotional or historical meaning attached to them.

Lisa: The lot of it, or loads of it got broken and stuff. It was only stuff and we weren't hurt so that was fine. Yeah wedding presents and things that'd been given to me when I was leaving the UK and stuff like that, but we've kind of gotten used to that. We've got one wine glass that we treasure that we've had since we got married.

Lisa also highlighted how her past is tied to some of her damaged belongings, but then minimised her attachment to them by claiming that 'it was only stuff'. By comparing the importance of her broken wedding presents to that of her family's physical safety, Lisa minimised the emotional impact associated with losing her belongings.

Jimmy: We did [have clothes], but not for like, uh, not for like a week. So I had like no clothes, and like, well yeah mainly clothes and shoes. I had the same set of clothes and shoes for a week. So I was like, borrowing clothes and stuff off my mates and stuff.

Jimmy was living in the central city and had to evacuate his building without being able to take much of his belongings. He was living at his friend's house and only had a few items of clothing at the time. Attempting to recover belongings from within the central city cordon was difficult because of the roadblocks which were patrolled by the police and army.

Jimmy: Every day we went to the cordon to ask these people, 'can you let us in?' And they're like 'na, na, na.' Then eventually one soldier said 'yeah, I'll let you in. But you can only go – but you can only go in for a couple of hours and you can only go in when we're changing over patrols, and then there's not going to be anyone looking at your house for a couple of minutes.' So we're like, 'sweet.' So he's like, 'if you can come back, like, within the hour, then I will turn a blind eye.' [We're like] sweet, so we went off, got a couple of four wheel drives and a couple of big trailers and then we drove back to where he was, and then as he saw us coming up he turned around and walked off. And left his patrol. So then we drove through, like, pulled up right outside my house, opened the door, went upstairs, and grabbed some stuff for like—just like clothes and stuff, for a bit. And then ran downstairs, locked it and then drove off. Back out of the cordon, and then, we still had all our furniture there. And we weren't—and then we didn't—we couldn't get back in to there for like, a good couple of months.

Jimmy found that despite the restrictions in place around the red zone, through persistence, he could eventually return for an unofficial recovery mission. To get back into his house, Jimmy

had to ask repeatedly before finally being allowed. Describing the mission as ‘hectic’ highlights the chaotic nature of the central city during this time.

Another who faced a recovery mission into the central city red-zone was Jemma, however, unlike Jimmy she did so through official channels months after the February 2011 earthquake.

Jemma: We did eventually get a recovery mission, so some of the possessions got recovered. I was out of Christchurch at the time, I had a weekend away in Wellington to get away and unwind for a bit. All the aftershocks were getting, yeah I was getting stressed I think. So when the EQC called and said look, you’ll have five minutes to get in and grab something and get out, you have that opportunity. So the flatmates I had offered to grab whatever I put on a list, or whatever they could because they didn’t really know the state of the apartment, so they risked their lives hopping in there, and a little bit later down the track we had a second recovery mission which was on the 13th of July. That’s when we had the second 6.3 earthquake. We were inside the cordons when that struck.

The loss of belongings for those who were living in the red zone coincided with a loss of voice. Attempts to recover property required engaging with recovery authorities, however, the loss of voice and marginalisation was so prevalent post-quake that dealing with the authorities created a challenge on top of a burden.

Loss of voice and marginalisation

The loss of the central city became more of an issue over time. This added to the dislocation that the participants experienced as they relocated because they felt that their voice had become silenced and they had lost a degree of agency. As a result the loss of the city not only made their houses less liveable, but also minimised their capability (Sen, 1993).

The central city also served as the local neighbourhood for four of the participants and for them the loss of their former neighbourhood was viewed differently in comparison to other participants. Those who had been living in the city reminisced about the unique nature of their former neighbourhood. Rather than talking about the loss of people and friends living close by, as those outside of the city did, the former city dwellers spoke of the loss of their

living and social environment. For the participants who had lived in the CBD, the city was an environment which provided and stimulated almost every aspect of their social life.

Sylvia: People used to go to town, or go to town from there. So people would congregate there, and yeah, then living in the suburbs you're quite dislocated from people, and it's difficult for people to get around. Yeah it just made it really, I think that socialising with friends wasn't really a priority immediately afterwards. People just wanted to be with their families and then it just became something that was kind of difficult to organise, and it kind of fell by the wayside a bit.

Sylvia found that the loss of the central city greatly affected her social life and when she moved out into the suburbs, her personal relationships 'fell by the wayside'. Her flat in the central city provided more than shelter; its location provided a place for her social life to exist.

Similarly, Jimmy talked of living in the central city before the earthquakes forced him out.

Jimmy: And then you've got the, got the exact same streets but in the night time, and then you bring like sort of, more pumping music, a different atmosphere, and you've got, you've got, you know, two in line in town, like you've got the beautiful day time and then you've got the, you know the night time as well. Which like is nothing, because it's, I mean, it doesn't compare to, I've only been out a couple of times to a couple of places in Christchurch now, but it's just shit. Like it's, it's not even worth going out into the town or Riccarton, like it's shit. But yeah, reflecting, it was, that was definitely a big part of it, like, being able to walk out the door, and like you say, when the sun's shining, you just stroll down past some nice op-shops with some nice second hand furniture and you can like, smell the wood as you walk past, and then you walk past a coffee shop and, all these, you know, nice sensations and it's hard to get that anymore.

Jimmy highlighted how the central city stimulated the senses, such as the fragrance of the shops and cafes. The embodied attachment he held with his old neighbourhood differed from the experiences of others; the aroma of coffee, the scent of wood and the warmth of the sun. Sensory memories of the inner-city were also described by Lisa, despite living outside of the CBD.

Lisa: There were lots more calls for the markets and open spaces for people to play music, which were always some of the most amazing things when I first came to Christchurch was the music in particular which brings people together. I used to love walking around thru city any time of the day or night. There used to be a guy who used to do fire stuff in the Square to music and people who were playing in clubs, which aren't there anymore.

The central city was part of the social and emotional lives of the participants. For Sylvia and Jimmy, who both lived in the heart of the city, it was difficult to define the boundary of their home. The city was not so much an extension of their living space—it was their living space. The liveability of a house was not restricted to the physical building, nor the property, instead, the spatial boundary that influenced one's house was difficult to define, and also appeared to be fluid. Even for Lisa, who had not been living in the central city, the loss of the city altered her living experience.

The planned rebuild of the central city was regarded as a major influence on liveability of Christchurch, both at the time of the interview and looking ahead into the future. The participants claimed that the needs of the locals had been ignored, and instead the focus had become the image of the city.

Sylvia: Do you know what I'm not happy about as well, I have a friend who works as a punter on Avon River and I went down to see him recently and – 'oh, we're opening up this new boardwalk and it's so beautiful, and all the rivers are going to have these lovely walkways that extend over the river that we can walk around and promenade about' - and it's like, that's lovely, it's a whole green city thing, that's a great idea, but the eastern suburbs are still fucked, people don't have houses, why are we spending money on stupid boardwalks that are not necessary. It's like because 'we'll bring in the tourists and stuff'. Well, what about the people that live here?

Sylvia questioned why the focus of the rebuild has been on making the central city aesthetically pleasing when the east of the city remains damaged and residents do not have access to housing. Her view of the rebuild questioned the values of those in charge. Lisa was also frustrated with the focus of the central city, however, she suggested the problem was that the rebuild was focusing on reviving the economic heart of Christchurch first.

Lisa: Well I don't think they have responded very well, that's the first thing, because they have concentrated more on image stuff and they're still doing it. I'm going to go off on a tangent because the town hall thing at the moment, apparently they're going to have a walk through to decide if they are going to spend \$127 million on it and there are people who are living without toilets and stuff over on the east side of Christchurch and that has just not been a priority... There's a lot of that around the hotels, what is good for the hotels, what is acceptable for the owners of big hotels, but the people that actually live here don't have a place to live at prices that they can afford. That adds massive, I know as a social worker that has massive impacts on families and children and everybody.

Lisa considered the effects of the business focused rebuild from a social worker's perspective to highlight how the housing needs of the marginalised have been ignored.

The excerpts about the central city rebuild show how the liveability of the participants' neighbourhood, suburb and city affected the liveability of their house, and therefore the degree of ontological security they felt it provided. The central city appeared to be inseparable from the participants' housing problems in part because their houses existed within the city of Christchurch, and additionally, the liveability of a house depended on the central city being functional and desirable. The difference between a business centric city and one designed primarily for the people was a prominent issue. The central city rebuild was considered to be image conscious and for tourists rather than locals. When the CBD rebuild was discussed, it was done in reference to the living conditions of the people of Christchurch.

Losing the central city diminished the participants' opportunities to socialise. The central city was not described as a central business district, instead, it was framed as a social space.

Zac: Everyone is living on the outskirts. I really miss the central thing. When I was scoping out from Greymouth I used to stay at the YMCA, go down to the Dux and drink decent beer and talk to complete randoms and arty people and you know. That central stuff is not there anymore. It's like a big town, it's like a massive version of Ashburton and I don't like Ashburton.

In addition to losing favourite central city bars, the nightlife that re-emerged after the earthquake was different to what was there before.

Emily: I guess the only other thing is that in Christchurch is so dispersed now that going out means that you have to drive or bus or however you're going, you go to one place and then the other place you are going is on the other side of town. Or where do you go? Because there are a lot of bars that have come up that aren't really our scene and the places that we used to go are gone.

Emily and Zac explained how the social interaction which had previously occurred within the central city was now happening on the outskirts of the city. The void in the central city also created a social void. Despite the emergence of new bars, participants reminisced about the old bars and claimed that the new bars were not the same.

The critiques of the CBD rebuild highlighted feelings of marginalisation. The silencing effect of the top down centralised decision making process in relation to the rebuilding of the central city brought about feelings of frustration. This was partly exacerbated by the initial *Share an Idea* campaign initiated by the Christchurch City Council which appeared to give Christchurch residents a voice in how they want the city to be rebuilt, however, attention towards their voice appeared to dissipate over time.

Lisa: I feel a bit idiotic to be honest that I listened to the government when they said they wanted our ideas and they'd build the city that we wanted. There were some really fantastic ideas coming out, it was a real opportunity for something to be completely innovative, completely. I've got a friend who is not in New Zealand, but he's involved in water filtration so he builds roof gardens into some places where they filter their own water and they use it within the building. There were opportunities to be building stuff like that and have it really green. It's not that I'm a real greeny person, but if we can incorporate where we don't usually think of it before. Solar power as well, why don't we have more solar stuff. None of that seems to have been incorporated into the plans, or they seem to have been watered down. It's more to do with keeping us quiet for a while. Give them something to do, let them paint a picture over there and we'll get on with what we want to do over here and they'll get over it when it's not built. That's probably the gut reaction I get from local and national governments.

Lisa described how members of the public were asked for their opinion on the central city rebuild, but then they were not listened to. This process, which resulted in a false sense of empowerment, left Lisa feeling 'idiotic' for initially believing that the city would be rebuilt

with the public's ideas. The short-term decisions that were being made left some feeling politically excluded.

Sylvia: It's such a typical example, but disaster capitalism. People are so tired and so fed up and worried and trying to actually get by on a day to day basis that they just wanted something that would be a fix straight away. They didn't really have time to think about what their long term interests would be, because why would you when you are kind of struggling now, and I think that National really took advantage of that, and I think that that is evident as well in a lot of the, like, when they got in they suspended a lot of democratic possesses.

There appeared to be sense of powerlessness and a grudging acceptance that gaining the right to the city was not possible at the present time, and nor would it be in the future. The power vested in governmental institutions was seen to be undemocratic and dictatorial in its nature. Faith in the ability of the governmental process was limited.

Sarah: To be honest it's hard to know, I must say that I feel less politically minded post-earthquake than I did before, I just, it's like, when I look at the news and try to decipher what's happening with the city council, it just to me looks like a nest of bees [laughs]. I just think, they're just, if that much in-fighting makes it into the media, God knows what's actually happening. They don't seem to be able to get their ducks in a row, you know I've obviously come from a mental health professional background, but to me it looks like just people with a whole lot of unresolved trauma, just sort of dumping it all over each other, and I think they give great lip service to things but I also don't, I don't think they have much, you know, much in the way of active power. And when they, you know, when they turned it over to the federal government, I mean to the National government I just sort of went 'yeah, nobody trusts that anything's happening yet'.

Looking towards the future, the participants believed that little progress would be made regarding the fostering of political voice.

Sylvia: I don't think the priorities are right. I think it's really lucky, this is exactly what I feel like National want, they don't want a city for people to live in, they want a city that's going to, I don't know, bring them money and that, you know, all these investors

are going to want in, and they're just - like they're doing with assets, they're just selling our homes away. At the same time, I guess things that interest me about it is they're selling the narrative that lets us know why we're here and what we're part of, and it's really disorientating, and that again makes it easier for it to happen, because people are really lost and they don't have physical things that show them that this is the community they belong to, or the history that they have here. That has all been taken away and without any say of what is going to replace them. People are just going to find themselves one day in this place that they cannot really comprehend. I think that is one of the more dangerous things.

The response of the participants concerning the future of Christchurch was largely pessimistic. Describing the current situation as a narrative which was being sold to them and other members of the public highlights the loss of agency and the scepticism the participants held about the democratic process. The suggestion they made was that there is a systematic process designed to disorientate the public so that they would not offer any degree of resistance against the business centred rebuild.

Conclusion

This chapter has presented the findings from the analytical process to show the students' nuanced, and occasionally contradictory, complex experiences of housing insecurity. As was described in the previous chapter, the grounded theory analytical methods I employed ensures that the findings emerge from the data, however, the epistemological influence of the constructivist methodology acknowledges that I, as the researcher, cannot be separated from the analysis. The way in which I presented the findings is no different; excerpts from the participants shape the core categories of the findings chapter. In doing so, I endeavoured to give the participants' words space by presenting them first, before then giving my interpretation. The selection of the excerpts were is partly the result of the way that I see their experiences relating to one another, as well as how I have perceived their context.

This chapter combined the broad range of experiences, positions and actions into three core categories; *mobility*, *recreating security* and *loss*. The first theme, mobility, illuminates the relocating experiences of participants which can be shaped by tenancy agreements and other

factors, such as relationships with friends and family. In response to mobility, and also the threat of mobility, the students searched for stability as a way of minimising the effects of relocation and dislocation. An important aspect of mobility was the desire for stability which was difficult for the majority of the participants to achieve since they were renters. Renting property resulted in feelings of disempowerment and this forced mobility negatively impacted the students' ontological security.

The second theme follows on from the first and shows how recreating security was attempted in a number of ways. In their search for security the participants found comfort through interpersonal connections, and also sleeping together in a living room. Recreating security was also about becoming familiar with new environments and minimising the negative effects of living in unsuitable housing.

The third theme is loss which showed two different kinds of loss. The first was losing belongings, or in some instances eventually recovering the belongings. The second type of loss was about loss of political voice and feeling marginalised. This was often the effect of being excluded from the future plans of Christchurch, which then contributed to otherwise suitable housing being perceived as unsuitable.

Following on from the findings is the discussion chapter where I will be drawing on the key points from the excerpts and proposing a theory.

5. Discussion

Introduction

This chapter presents my interpretation of the findings chapter. The first section discusses existing social science theories which help to synthesise the research findings to produce an explanatory theorisation of students' housing insecurity. It follows Charmaz (2006) who highlighted how within a constructivist paradigm this stage of the research draws upon and reconfigures existing theoretical frameworks. The theory which I developed through my interpretation of the data and the findings seeks to fulfil the initial aims of the research, which were to explore the changes that the participants faced in regards to their housing, and to explain how the challenges were negotiated. This chapter is arranged in that order; first the key challenges and then how the challenges were negotiated.

The experiences of housing insecurity were complex, confusing and multifaceted. As a result, the challenges faced and the processes of negotiation were often one and the same. For example, close support networks acted as both a cause of housing insecurity, but also a source of support—often simultaneously. Also, the progression from a challenge faced to a possible solution did not always occur in a straight-forward linear fashion, instead, the experiences of the participants were varied and complex, and as a result the experiences of the participants cannot be neatly compartmentalised.

Despite this complexity, common themes run through the research findings. These commonalities tie the participants' experiences together, and from that I suggest a coherent theory, not only to show how housing insecurity occurred, but also to give insight into and further an understanding of how housing insecurity was negotiated. The theory I put forward in this discussion is my interpretation of the participants' experiences which emerged throughout the research process following the interviews. I found that when the findings of the data are viewed through a mobilities lens, the capability to remain immobile, or become mobile, is a defining indicator of the participants' housing security as the participants' ability to control their mobility defined their experience of housing insecurity. Furthermore, the participants engaged in a process of furthering their security capital as a way of negotiating their insecurity if they had limited control over their residential mobility.

Losing the ability to control mobility was in many instances experienced as being forced out of a house, or not being able to move into a more suitable house. However, most participants rarely had control over the ongoing threat of forced mobility and it remained a future threat even once stability had seemingly been achieved, in particular for those who were renting under tenancy agreements, and for participants who were parents. Housing stability was strongly linked to immobility because this would minimise their housing insecurity for as long a time as possible, however, achieving immobility long term was difficult within a post-disaster environment. This was rarely achieved and instead, immobility remained a goal that was aspired to.

I found that control over one's mobility was affected by three features: the influence of the participants' social networks, the participants' perception of their wider geographical context, and communication issues with landlords and government organisations. Possessing the capability to control one's mobility is strongly shaped by the individual's social network because each person's network dictates access to social and economic capital, as well as possible housing options. The ontological security that a house provided was influenced by the individual's view of a suburb or city. How a participant experienced the liveability of a house extended beyond the physical structure of the house and property, and was shaped through their perception of the city, in particular the political ideology that was seen to underpin the rebuild of the central city. Also, the possibility of forced mobility was compounded by poor communication with landlords and government organisations. These key factors illustrate how control over residential mobility defines the experience of housing insecurity.

The participants negotiated the effects of limited control over mobility in three ways. They drew on their support networks, they attempted to remove themselves from the pressures of rental tenancy agreements, and they engaged in a process of resourcefulness which included minimising risk.

The support networks were primarily family links, but also included friends and acquaintances. Support networks offered security in a number of ways, thus acting as a form of security capital which could then produce other forms of capital.

The way that participants attempted to create long lasting housing security was by removing oneself from the local rental market; this is directly related to motility. To no longer live

within the confines of a market rental tenancy agreement some participants purchased a house, whereas others planned to relocate outside of Christchurch. However, to remove oneself from the Christchurch rental market was an option available to only a few, and when this solution could be realised, a number of challenges remained.

Engaging in resourcefulness and risk minimisation were indirectly related to improving one's mobility because resourcefulness and risk minimisation were used as temporary or transitional measures. The participants often employed the process of resourcefulness by temporarily adapting to their situation immediately after the earthquakes as a way of addressing a lack of resources. For others, resourcefulness included altering the material surroundings within their living environment so that it became more homely, or borrowing clothing and items required for everyday living. Resourcefulness in these instances was not considered to offer long term solutions, instead, they provided temporary—and occasionally long term—adjustments as a way of overcoming challenges while they continued to formulate more sustainable ways of creating ontological security (Dupuis & Thorns, 1998). Likewise, minimising risk was a temporary measure to improve physical security, or to address health concerns which were caused by the cold, damp houses. This was achieved through making small adjustments to the house's structure, and also employing a range of lifestyle changes to keep the house warm and dry. Risk minimisation was also evident in the way that the participants attempted to create a safe neighbourhood by developing and strengthening relationships with people from within their community.

Motility and housing insecurity

The changes that the participants faced in regards to their housing can be understood by considering their access to the capabilities required to control their mobility.

Possessing the capability to choose one's own mobility was an important factor in determining whether or not a house provided ontological security. Mobility in the context of this research is not simply about a participant being able to shift their home to a more desirable house or neighbourhood, rather, mobility is having the opportunity and capability to live in a house or location which enhances the individual's wellbeing. Access to mobility is control over one's movement, therefore the opportunity to be immobile—being able to stay in

one's house/neighbourhood without impacting on quality of life—can be just as important as possessing the means and opportunity to move into a *better* house or neighbourhood.

Having access to the capabilities required to control mobility resonates with Kaufmann's concept of motility. Motility is defined as an individual's capacity to be mobile. Motility considers the mobility opportunities which are available, and also the reasons why these opportunities are appropriated (Kaufmann, 2002). Motility can be regarded as a form of capital in both horizontal and vertical contexts; as spatial mobility and social mobility (Kaufmann et al., 2004). Both of these contexts are explored in this discussion section. Motility is comprised of three elements; *access*, *skills* and *appropriation* (Kaufmann, 2002). These three elements highlight how the participants experienced housing insecurity because they help to explain how insecurity was a subjective experience that was shaped by a number of factors.

Access refers to the accessibility of possible options. Accessibility depends on whether the participants possess the means, such as economic capital and support networks, to use the options that are available to them. Access is contextual because it depends on the intersectionality of flows and networks and how they exist in relation to each individual. This element emerged as a key issue for the participants; those who could access their options found that they had more control over their mobility. For many of the participants, their access to mobility was constrained by their individual conditions such as their family responsibilities, economic limitations or employment opportunities.

The element *skills* is defined as an individual's ability to access options which can overcome mobility barriers. For example, the ability to communicate with landlords or remove oneself from the rental market removed the future threat of forced mobility and therefore increased the feeling of security. Possessing skills is contextual and can be influenced by actors, therefore, poor communication with a landlord cannot be assumed to be caused by the tenant only, or the landlord. Communication was also dependant on technologies such as mobile phones, email and transport. As a result skills depended not only on people and their relationships, it also required communication technologies. Often the opportunity to access options was not possible, however, mitigating against the negative effects of limited motility was possible through the act of resourcefulness.

The third element of motility is *appropriation* which considers the participants' values. *Appropriation* was dependant on multiple influences, and in some cases highlighted the contradictory nature of plans and aspirations. The differing values and desires of the participants were influenced by how they perceived their housing insecurity, as well as structural effects. For example, in seemingly similar situations, one person's mobility was an undesirable experience which resulted in a feeling of disempowerment, whereas for another forced mobility was the fulfilment of needs and a feeling of increased security. For some participants, moving to a warm, comfortable house would have ensured housing security, however, this was not always the case. For other participants, the option of moving to a new house could not provide housing security because their sense of security was inextricably linked to their location, and housing security could not be obtained through relocation. For this reason, remaining immobile would have provided more security than moving could provide because housing security was defined by emotional belonging to place.

Kaufmann's concept of motility offers a framework that resonates with my interpretation of the participants' experiences of housing insecurity because motility considers how individuals appropriate the available options in regards to their mobility, and consideration is given to how the value attached to those options is both contextual and subjective (Kaufmann, 2002). Kaufmann claimed that the field of mobility studies have a tendency to veer towards a deterministic or normative interpretation of phenomena, and in order to 'avoid this trap and approach mobility as a possible new factor of social differentiation, the motivations underlying mobility must be explained' (Kaufmann, 2002, p. 1). By drawing on the concept of motility I have been able to consider the way in which spatial and social mobility has shaped the housing experiences of the participants in a post-earthquake environment. The contextual influences and subjective values intersect as the participants experience and manage housing insecurity.

Support from social networks

The capability to control one's own mobility was shaped by the participants' position within their social network. Each individual's social network included an array of influences which could empower or disempower, depending on the context. The way in which different forms of capital became more or less effective over time can be explained through the work of

Bourdieu. Social capital was found to be the most important form of capital within the research, however, this intersected and interacted with cultural capital and economic capital depending on the field. As Bourdieu points out, the different forms of capital are interrelated and can be converted to one another:

Depending on the field in which it functions, and at the cost of the more or less expensive transformations which are the precondition for its efficacy in the field in question, capital can present itself in three fundamental guises: as *economic capital*, which is immediately and directly convertible into money and may be institutionalized in the forms of property rights; as *cultural capital*, which is convertible, on certain conditions, into economic capital and may be institutionalized in the forms of educational qualifications; and as *social capital*, made up of social obligations ('connections'), which is convertible, in certain conditions, into economic capital and may be institutionalized in the forms of a title of nobility (Bourdieu, 2002, p. 281).

Bourdieu's explanation shows how the social capital that an individual has access to is influenced by the field in which it functions. Furthermore, when one's field changes, the social capital that existed through their connections and obligations also changes. This means the capital that the participants had was relational to, and dependent on, the given context (field) at a specific time. Wacquant (1998) provided a useful example of how social capital can be positive or negative with his investigation into how social capital is experienced by people living in American ghettos. *Formal* social capital, which exists through the link between an individual and public institutions and organisations, could be experienced as a negative if the capital provided is residual and merely prolongs a state of dependency. Whereas *informal* social capital, which includes social ties at an interpersonal level, could be positive when it acts as a safety net, but also negative if it caused ongoing marginalisation from accessing resources outside of the ghetto (Wacquant, 1998). I found this distinction between *formal* social capital and *informal* social capital, as well as positive social capital and negative social capital, to be a useful way of understanding how the participants' experience of social capital was multi-dimensional and fluid. I integrated this understanding of social capital into my analysis of the participants' experiences of housing insecurity to highlight how numerous factors can affect motility, the first element of which is *access* to options.

Accessibility of possible options is contextual; each participant was affected differently by seemingly similar factors, however, commonalities did emerge, such as one's position within their family. Support via social networks primarily emerged from within one's own family, but this form of social capital was multi-directional and dependent on a number of pre-existing factors. For example when the participant had parental responsibilities, then those participants became the fulcrum of social capital because family members, both young and old, sought support from those participants. Parents were burdened with more stress not only because of their parental responsibilities, but also because their children's needs limited their housing options. Because of this, dealing with landlords, rental agents and the EQC became more difficult and when searching for suitable housing. Parental responsibilities heightened the need for housing to be stable and fixed, in comparison to those without dependants. The reason for this was that children required greater degrees of ontological security. This kind of security was said to be the result of geographical stability, more than it was the physical safety of the house. Consequently, finding a safe and secure house was not enough because the security that a house provided emerged over time and therefore, long-term tenancy or home ownership was preferable. Participants who fitted into this category where they had to care for generations either side of them found that the stress associated with forced mobility was compounded.

Conversely, those who experienced forced mobility, but were already living with parents were sheltered from stress despite often experiencing sudden changes to their lifestyle and routine. For these students the challenges associated with finding a suitable house to live in could be offloaded to their parents despite there being a real possibility that their family might experience homelessness. Living with parents acted as a safety net which afforded a degree of security to those who had returned temporarily to the family home for a brief period of respite, or had returned for a longer period of time. Family and friends became the primary source of capital used by students when their housing security became precarious, in particular during the period immediately after the earthquakes. However, as time went on economic capital became preferable and utilising the safety of social networks long-term led to feelings of guilt.

The students who utilised their networks, such as moving into their family home immediately after an earthquake, found these networks to be adequate substitutes for their limited economic capital at this time when they were more likely to have become unemployed.

However, over a period of months as new opportunities for employment emerged, their continued drawing upon parental social capital resulted in feelings of guilt and concerns about being a burden. Gradually, as economic capital became easier to acquire, it became a primary form of capital to the point where it began to produce social capital. Thus, the possible options that could provide motility were initially fostered by social networks and parental social capital, but as time passed economic capital allowed for more mobility options.

The other network that the participants drew on was primarily made up of their friends and partners. Although not to the same degree as family, friends were still viewed as acceptable networks from which to seek support. The key difference between the two was that those who sought the assistance of their friends were far more likely to feel guilty, or consider themselves a burden. The feeling of being a burden became more likely overtime for those who were living at a friend's house, whereas living for a long period of time with family did not have the same effect. This may have been shaped by the individualised nature of the socio-economic environment where individual responsibility gradually re-emerged over time after the earthquakes. As the discourses throughout Christchurch and New Zealand shifted from concerned collectivism towards tired individualism, expectations to be self-sufficient returned to the way they were pre-quake. Individualism, in relation to housing, meant that living at a friend's place became gradually less acceptable. This shift from post-quake collectivism towards a re-emergence of individual responsibility was usually an internalised feeling; it appeared to be a subjective expectation.

By considering Bourdieu's concept of fields, the effect of social and economic capital on access to motility becomes clearer. Each individual's ability to control their mobility rarely reaches a state of stability and the threat of a loss of motility remains a possibility. As pointed out in the tenancy agreements section of the findings chapter, a key issue which created perpetual instability was the relationship with their landlord and the rental agreements.

Tenancy agreements and the EQC

Control over mobility was affected by the quality of the communication that the participants had with their landlords and governmental organisations, such as CERA. A lack of

communication with a landlord, and the perceived loss of voice with governmental organisations, exacerbated housing insecurity. This created a disempowering effect which not only affected control over their mobility during the present, but also their future motility.

As Bourdieu (2002) noted, different species of capital emerge as the most empowering form within a given field. For example, when the participants struggled to find a new rental home to move into, social capital and cultural capital became important as they searched for a new place to live. Furthermore, Wacquant's (1998) distinction between *informal* and *formal* social capital is useful for teasing out the difference between finding a rental house through their social connections, or finding a place to live through the rental market. The participants who found a new place to live through their friends, family, or other close personal connections did so because they were positioned within their rental market field in such a way that their *informal* social network provided them with the opportunity to access housing. Family connections, which often extended beyond the nuclear family, were the most likely avenue for these participants.

In contrast, those who found a new rental house through *formal* social connections primarily employed the services of rental agencies. When this route to housing was taken the participants found that cultural capital became an empowering form of capital, however, the cultural capital associated with being a student only applied to mature students. Finding housing through rental agencies was a difficult task, but was made easier for those who could utilise their cultural capital. For example, both Emily and Sarah were mature students with children and both talked of how their cultural capital impacted their housing. Emily highlighted how she was a social work student which projected an image of trust towards the rental agent and consequently the rental agent suggested rental houses which had not yet been placed on the market. While Sarah spoke of how her high level of education and being a professional usually gave her an advantage in the rental market because this was seen in the eyes of the rental agents as possessing the traits of a desirable tenant. In spite of this Sarah differed to Emily because Sarah did not find her cultural capital to be as effective as it had been prior to the earthquakes.

Bourdieu referred to this kind of cultural capital as being a form of capital that exists in an 'institutionalised' state because it has been developed in an educational institution, and thus differs from other forms of cultural capital that can stem from family bloodlines or ownership

of objects (Bourdieu, 2002, p. 282). This institutionalised cultural capital had to be made visible by the participants, and this was relatively easy since they were students at the time. Cultural capital therefore became positive capital for some participants when their informal social capital was limited and they had to interact with rental agents. While cultural capital affected renters, those who were not renting drew on their social capital.

The problems associated with forced mobility for homeowners were the unpredictable nature of forced relocation from their homes while their house was being repaired. When the EQC notified a participant that they had to vacate their property at short notice for EQC repairs, their housing options were often limited. Furthermore, the information regarding a completion date for the repairs was rarely accurate and temporary accommodation remained difficult to define. For these participants social capital was vital; those who were living with family experienced relatively minor levels of stress in comparison to those who had to organise their accommodation themselves.

With relevance to the current discussion, those students who were living within their family home and had to relocate temporarily for EQC repairs highlighted their stress free experience. This is not to say that their housing did not become insecure, rather, their parents or other family members took on the responsibility of finding a temporary home and the participants were protected from the stress associated with forced mobility at short notice. Conversely, those who were parents found moving for EQC repairs to be extremely stressful because it was not possible to adjust to a new environment during such a short stay. Their geographical dislocation was made worse by their limited communication with EQC, which as a result fostered a sense of disempowerment. This meant that trying to increase motility became difficult, if not impossible.

The elements of *access* and *skills*, which help to produce motility, were compromised and consequently control over mobility could not be recovered. *Access* to options became limited because the participants could not make reliable plans. Short term renting was the only option available to those who had moved out for EQC repairs and, generally, the shorter the tenancies, the higher the cost of rent. To ensure some form of stability, high prices were paid, however, this resulted in a sudden loss of economic capital. For example, Rachel moved into a motel at a high cost, but in return received a reasonable level of stability, at least for the first few weeks.

Perception of neighbourhood, suburb and city

The third element of Kaufman's concept of motility is appropriation which considers how the individual's values, habits, motives and desires shape the decision to draw on their motility (Kaufmann et al., 2004). Appropriation allows for a value judgement of the possible options alongside an analysis of their own skills, so that they can then choose whether moving or staying best suits their needs. Two prominent values emerged when the participants discussed moving to a new house; the first was the emotional attachment that the participant had to their existing neighbourhood and suburb, and the second value was the physical state of their neighbourhood, suburb and city.

The ontological security that a house provided extended beyond the physical structure of the house and was fostered by the participants' connection to their neighbourhood and suburb. Generally, those who were living in a damaged neighbourhood felt disconnected and that their housing no longer offered the ontological security it had before. However, for other participants who had lived in an area for a long period of time, emotional bonds and interpersonal relationships fostered a sense of belonging that overcame feelings of disconnection. For these participants, resistance to relocating to an unfamiliar area was justified because of the sense of belonging they felt towards their neighbourhood. This sense of belonging was more pronounced for those who owned their house, or lived with their parents in a family home. Similarly to space, enduring and stable relationships with neighbours and people in the community were valued most by those who had lived in an area for long period of time, or had connections with local community organisations such as churches. When an emotional or interpersonal connection to one's location was evident, participants often used the term community instead of neighbourhood, and the security of a house was described less by its relation to its physical surroundings, and more by the participants' connection to place and people.

These bonds and connections influenced the participants' preference for immobility even though this would mean continuing to live in areas which had experienced severe earthquake damage. Housing security could be fostered within these seemingly insecure environments, so long as the emotional attachment to a place was valued highly enough by the individual. The participants applied Kaufmann's element of *appropriation* by considering their values; in

particular the value they ascribed to emotional belonging in comparison to the negative effects associated with living in a damaged environment. In effect, a sense of emotional belonging became a form of *security capital*. For example, Miriama resisted the thought of moving from her damaged neighbourhood and claimed that ‘it’s like they’re trying to push us out of that area to come over this way’. In contrast Bill was living in the same suburb, however, he spoke of wanting to ‘move to a safe environment’. Miriama values were defined by her emotional belonging to her neighbourhood, whereas Bill valued physical safety and living in an undamaged environment. Thus, security capital can be cultural and fostered through emotional belonging, or it can be influenced by material surroundings and feeling physical safe. These contrasting examples show how becoming mobile did not in itself provide an increased sense of housing security, instead, it was possessing the capability to control one’s own mobility which led to feelings of security.

Another way in which the wider environment shaped the perception of a house, as well as the security it provided, was the physical condition of the neighbourhood, suburb and city. The security of a house depended less on the structural integrity of the house and more on the liveability of its neighbourhood and surrounding area. When asked about why their housing was insecure the participants often talked of the physical condition of their neighbourhood. The roads, the local parks, the neighbourhood shops and their community’s facilities quickly became the focal point of the conversation and the main reason why they considered their housing to be unsuitable. Many participants described their house as being part of, and also influenced by, the wider physical environment that it existed within. For the participants who focused on the physical aspects of their neighbourhood, moving into another area of Christchurch was preferable. This desire to move contrasted with the desire to remain that was expressed by the aforementioned participants whose security was defined by emotional belonging. The difference in how emotional belonging and physical surroundings were valued shaped how motility was defined; the former preferred to move, whereas the latter preferred to stay.

Having a negative view of the CBD rebuild affected the liveability of one’s house in a similar way to that of a damaged neighbourhood. The liveability of a house depended on the amenities of a functional and people-centric city. However, the emotional impact of a damaged central city was slightly different because it shaped participants’ long term view of Christchurch. The reason for this was that the proposed rebuilding of the central city was

described as business focused, while the desires and values of the participants had been ignored. This resulted in a disempowering effect where the participants felt excluded from the future Christchurch.

Producing security capital

At this stage it is worth reiterating the second aim of this thesis; to explain how the challenges associated with housing insecurity were negotiated by the participants. Having shown that the challenges faced by the participants can be explained through the concept of motility, I will now go on to discuss how the participants attempted to overcome their challenges by increasing their motility. This was achieved through a process that can be described as *producing security capital*. The word *process* highlights the way in which security capital had to be produced continually, rather than being a state that was reached. In many instances security capital could not be banked or stored away for future use, instead it was a form of capital that required constant production; creating a form of security capital that was long lasting was difficult, if not impossible. One reason for this was that the act of producing security capital often opened up vulnerabilities in other ways. For example, buying a house was the most effective way of producing security capital, but this also left the participant more vulnerable to other forms of forced mobility in the event of a future earthquake; home ownership created stability, but also opened up homeowners to other possibilities of experiencing forced mobility. Therefore, furthering security capital required homeowners to continually take measures, such as insurance and repairs, to help protect them from possible challenges in the future which could affect their motility. This was one way in which security capital could be improved, but not reached, and as a result continued to be an ongoing process.

Before progressing further I would like to define exactly what I mean by the concept of *security capital* in relation to housing. I draw on Bourdieu's (2002) interpretation of capital to highlight two key traits that are inherent to this form of capital, before then applying Kaufmann's (2002) concept of motility to frame how it exists as a process. Firstly, security capital is one form of capital that intersects with other forms of capital, such as social capital, cultural capital and economic capital. In this sense security capital can be created by, or

transformed into, other forms of capital, but this is dependent on numerous factors which appear at both structural and individual levels. Secondly, security capital is a process, not a state that is reached; the reason for this is it is contextual, fluid, unstable, and therefore defining it in a way that is generalisable is problematic.

In addition to sharing similarities with Bourdieu's (2002) interpretation of capital, the way that *security capital* works as a process can be explained by the elements that constitute Kaufmann's (2002) definition of motility; access, skills and appropriation. Access refers to the possible options that exist, such as economic capital and available social capital. Skills can sometimes be pre-existing, however, there is always the opportunity to develop skills which can foster capital, or assist in transferring other forms of capital into security capital. An important aspect to access and skills is that both are susceptible to change depending on one's spatial environment or interaction with institutions and organisations. Furthermore, one's personal wellbeing and ideological preferences can shape the last element, that being appropriation. How people interpret their opportunities is shaped by their values and ideological beliefs, as a result the process of producing security capital is driven in part at an individual level. By bringing a Bourdieusian interpretation of capital into Kaufmann's concept of motility we can see how the participants were constantly producing security capital in an attempt to increase their control over their own mobility.

To demonstrate how this theory of producing security capital was performed by the participants, I will provide two examples. Firstly, the participants attempted to remove themselves from tenancy agreements or rental housing, and secondly, they attempted to recreate their home so that it became more liveable, and therefore less insecure. The reason why the participants attempted to remove themselves from tenancy agreements was because when a participant was living in a rented house their motility was insecure since tenancies rarely lasted beyond one year. This aim was achieved by some through purchasing a house, or living with people from within their close personal network, usually family. When this was achieved the threat of forced mobility reduced drastically. Also, making plans for moving out of Christchurch and relocating to another city, or another country, was another way of removing oneself from tenancy agreements in Christchurch. The way that the participants produced security capital was through acts of resourcefulness to recreate their living environment. If the participants were unable to move and had to remain in substandard housing, then *resourcefulness* was a process that the participants engaged in so that everyday

living could be performed with a minimal amount of inconvenience. Additionally, a process of risk minimisation was performed at various stages when housing presented a risk to the physical wellbeing of the participants or their family. These processes of resourcefulness were often performed within the home and worked to reconfigure their living environment to such an extent that their housing provided greater levels of ontological security.

Withdrawing from the rental market

To address one of the main causes of forced mobility, that being the long term instability of tenancy agreements, some participants attempted to withdraw themselves from the rental market. The most desirable and effective way of removing oneself from the need to rent a house was to become a home owner. For those participants who were able to buy a house, they found that property provided ontological security and the threat of forced mobility diminished. The outcome of this stability was that interpersonal relationships became a form of positive social capital. Once the stress, worry and concern over long-term housing stability was eliminated or reduced, the participants then found that other aspects of their lives were less problematic, and more empowering. For example, the location of a rental house had to suit the needs of other family members, and this became a key concern at the end of every tenancy when housing insecurity was at its most acute. But if the participant bought a house then the worry of regularly finding a suitable house no longer existed and family members were no longer a cause for concern. This finding synthesises the basic elements of motility and social capital together to show how the ownership of a house became a positive form of social capital which stabilised many additional aspects of the participants' lives.

Although being a home owner did remove a lot of the insecurities associated with moving, possible insecurity existed in other ways for homeowners. Beyond the pressures of paying a mortgage, homeowners also found that dealing with EQC and insurance companies in the post-quake environment created stress and left them feeling insecure. The impact of interactions with these institutions affected homeowners in a not too dissimilar way from how relationships with landlords affected tenants; poor communication exacerbated problems and left the participants feeling disempowered and marginalised. Furthermore, there were similarities in the way the participants attempted to overcome these problems, such as drawing on other forms of capital to mitigate the negative effects of being disempowered. In

this instance access to capital through social networks opened up the opportunity for assistance in navigating the bureaucratic challenges that the EQC and insurance companies presented. This in turn developed the skills of the participants so that as time went on they became more capable and their feelings on disempowerment and marginalisation dissipated. This example shows how buying a house can bring about additional pressures, but then as the participants developed their skills to open up access to other options, their security capital grew. Tensions such as this were common throughout the findings. Capital in its many guises emerged, was transferred to another form of capital, and could then subside again; for this reason security capital existed as an ongoing process which would rarely reach a state of realisation, instead, security capital in relation to buying and renting remained fluid.

Another method for removing oneself from the post-earthquake rental market was by making plans to move out of Christchurch. Many of the participants talked of moving to live in another city or another country. Those who planned to move out of Christchurch city were often the participants who talked of the housing shortage being a human-made disaster created by institutions and people with political power. Conversely, those who did not talk of leaving Christchurch in the future were more likely to consider the housing situation to be an inevitable outcome of the earthquake. Blaming people rather than the natural event appeared to lead to the belief that changing one's housing circumstances remained largely out of the control of the participant. This was not a defeatist attitude, nor a pessimistic view of the future; instead, it was a defeatist and pessimistic view of the way in which the post-earthquake recovery had been handled by political actors. Far from diminishing or subduing personal aims for the future, the participants who spoke critically of the rebuild and the market-centric recovery also talked of leaving Christchurch with a tone of optimism and anticipation. This created an interesting paradox where those who were most disappointed with the political response from governmental institutions were more likely to be optimistic for their own future, whereas those who were less critical of the post-disaster recovery seemed to hold more of a defeatist attitude, and be less optimistic about their future.

Recreating security capital through resourcefulness

When the experience of housing insecurity was a result of poor motility the participants engaged with a process of resourcefulness as a way of adjusting. I use MacKinnon and

Derickson's (2013) concept of resourcefulness because of the way in which it highlights unequal distribution of resources and opportunities, and also acknowledges the limited capabilities some people have as they attempt to ferment change. Resourcefulness also relates to the individual because the success of showing resourcefulness relates to personal wellbeing and depends on one's skills and values being recognised by those who are arbiters of these skills and values. I incorporate the concept of resourcefulness so that my analysis does not ignore the structural influences that the participants are affected by.

Resourcefulness was not simply an act that was performed so that a solution was found for a specific problem, although that did often happen. An act of resourcefulness also altered the way in which *access*, *skills* and *appropriation* intersected with one another. Once a *skill* was obtained through resourcefulness, *access* opened up and this altered the values, desires, plans and aspirations (*appropriation*) of the participant. In this way resourcefulness became a form of individual empowerment. The argument could be put forward that this was a form of resilience, however, resilience can be viewed as a passive adaptation to a natural and depoliticised environment, whereas resourcefulness acknowledges the influence of structural limitations (Evans, 2011). Therefore, these acts that were performed by the participants were acts of resourcefulness which were often performed reluctantly with a critical view of one's environment, limited opportunity and oppressive power structures. More often than not the participants' acts of resourcefulness were performed to weaken or break down structures. Developing individual skills may on the surface appear to be resilient acts of personal-improvement, however, it was a form of self-development that appeared to be primarily driven by a determination to change, shift and/or break the systemic problems that were affecting them.

The participants' resourcefulness emerged immediately after the major earthquakes. The resourcefulness displayed following the earthquake was enacted as both a way of recreating physical security and ontological security. During this period close family members were a primary source of support, or more specifically, emotional support. Sleeping together in the lounge became a ritual for many participants and a way of fostering physical security as aftershocks continued for months. Although this could not recreate ontological security to the level the participants once had, sleeping together did to a degree replace the security that a pre-earthquake house provided. The secureness that the participants felt when they shared a sleeping surface shared similarities with the security that belonging and identity can provide.

For example Miriama referred to sleeping in the lounge as ‘marae styles’, whereas Lisa likened her family’s lounge sleeping to ‘camping’ and considered it ‘fun’. The imagery presented by the participants shares a number of similarities. The marae and camping could be considered empowering since they are cultural practices within Māori and Pākehā culture.

The marae and camping also symbolise protection and fortitude. Walker noted that a marae fulfils the ‘needs for the maintenance of culture, assertion of identity, and resistance to assimilation’ (Walker, 1992, p. 25). In a similar vein camping symbolises an act of fortitude where modern conveniences are not needed, despite the harsh natural elements. Therefore, sleeping communally in the living room was framed as being a way of fostering security capital, despite it occurring during a time of stress and concern.

Another way in which resourcefulness explains the post-earthquake experience was how home was recreated and everyday activities were performed during periods of time when one’s house was temporary and fluid. Recreating home was achieved by making small changes to indoor environments such as the kitchen and living areas. Interestingly the recreation of a home occurred soon after the earthquakes, during the same period of time when families were sleeping in the lounge together. Therefore, recreating a homely environment may have been a way of normalising the day to balance out the abnormal sleeping setting, or they could have both been rituals of empowerment to foster ontological security.

Conclusion

This chapter has presented the theory that has been formulated from the interviews with the participants. This theory provides an answer to the initial research questions and therefore is presented in two parts. The first section of this chapter explains how the housing insecurity faced by the participants revolves around their movement; both actual as well as possible future movement. Kaufmann’s (2002) concept of motility was used because it provided a framework for my theory. *Access*, *skills* and *appropriation* are the three elements which help to explain how motility affected the participants’ housing insecurity.

Access refers to the possible options that are accessible to the participants. Access can depend on whether the participants possess particular support networks or forms of capital, and whether or not they can use the options that are available to them. In order to negotiate their housing insecurity the participants' capabilities depended on their social networks, as well as social and economic capital. A common node within participants' networks was the family, and where a participant was situated within their family structure affected how they related to their social network. Parental responsibilities were found to be key signifier of how an individual experienced social capital.

Skills explains an individual's ability to access the options which help to overcome mobility barriers. This includes communication with landlords and governmental organisations because good communication could assist in ensuring that housing remained secure in the future. However, that is not to say skills depend on the individual; their access to resources, capital and support also shapes and defines the effectiveness of skills. Communication could be compromised by the tenant, landlord, government organisations, or a loss of the technologies that make communication possible. Therefore, skills could be used to navigate stressful situations or could be developed as a way of negotiating challenges

Appropriation depended on a range of influences, and highlighted the complex nature of plans and goals. Appropriation is about the choices that individuals make in order to maximise their wellbeing, however, choices were restricted or even coerced in many ways. Some found that their cultural norms limited or improved their motility. For others—particularly parents—their responsibilities shaped their choices. Preferences also influenced plans and goals. For example, living in a preferred part of Christchurch may have been more desirable, but being able to live in a desired location was dependant on access and skills. Therefore, the choices people made about where to live and who to live with was not a choice in the libertarian sense, rather they were restricted choices that were shaped by both material and intangible factors. Those three elements explain motility and show how housing insecurity was primarily affected by forced mobility. To mitigate against the loss of motility the participants drew on their social networks to foster security capital. This process was ongoing because of the perpetual threat of housing insecurity; consequently, achieving a state of secure housing was difficult, if not impossible. Regardless of how much capital one could produce through the use of support networks and acts of resourcefulness, the threat of housing insecurity remained.

Each individual's social network differed, however, close friends and family often provided access to resources and assistance. Capital from these sources came in the form of social capital and economic capital; both of which were informal and formal. Adding to this complex interplay of different forms of capital between actors and agents, capital could be both positive and negative depending on a number of influences. Despite this complex network of capital, a pattern did emerge and common features were found. Positive informal social capital emerged as the most prominent form of capital that the participants drew on as they sought to develop their security capital. Using their social capital and economic capital was an example of Kaufmann's conceptualisation of access because it exemplified one's access to options in both positive and negative fashion. Those participants who were able to maintain a reasonable degree of control over access to capital used informal networks to accentuate positive forms of capital while at the same time minimising negative forms of capital. This was an ongoing performance where capital in its various forms was drawn upon depending on what field the participant was situated in at the time.

While developing security capital by drawing on capital from within their networks was one way that the participants attempted to increase their motility, two other strategies were pursued; removing oneself from the rental market, and improving motility through the act of resourcefulness. The most effective way that the threat of forced mobility was minimised was through the purchase of a house. This strategy reconfigured an individual's network so that their mobility was more stable. This effectively removed the landlord or property manager from their housing network and as a result ensured that stability was more likely. However, becoming a homeowner brought with it a number of challenges and possible threats to one's stability. Once a participant became a home owner they were faced with additional issues such as insurance and EQC repairs; both of which compromised their control over mobility. Therefore, although home ownership increased motility overall, it was not without its problems.

Participants found that when they engaged in acts of resourcefulness they then developed further skills which opened up options so that control over mobility became more likely. In a sense these could be described as coping skills, however, the acts of resourcefulness extended beyond being resilient and were instead used briefly within a given place or situation. Acts of resourcefulness were not long term adaptive measures, nor were they performed with a defeatist attitude; instead, they were short-term ways to manage a situation before more

permanent solutions could be found. In some instances the resourcefulness included using cultural capital to overcome short-term insecurity. In this way resourcefulness was seen to be a positive outcome, rather than a burden or a problem.

6. Conclusion

Introduction

This study has developed a grounded theory of how housing insecurity was experienced by university students during the three years after major earthquakes. The purpose of this concluding chapter is to briefly reiterate the key aspects of this thesis, to reflect on the research, and to suggest how the resulting theory could be applied to housing policy and advocacy.

Firstly, I will review the thesis by restating the aims of the research, the justifications for the methodology, then present a summary of the research findings and the resulting theory. The limitations of this research will be explained, which then leads on to possible research in the future related to this study. Lastly, I will offer suggestions of how this research could be useful for policy formation and advocacy groups.

Methodology and findings

This thesis began with two aims. Firstly, to investigate how housing insecurity has been experienced by University of Canterbury students following the Canterbury earthquakes, and secondly to understand how those challenges were negotiated. A qualitative approach was chosen to fulfil these aims.

When I began this research information on housing in Christchurch was vague and unreliable as the housing situation in Christchurch was constantly changing. CGT allowed me to explore whether or not students were experiencing housing insecurity. Student housing after disasters is an unexplored topic and the grounded approach allowed me to generate a theory on an under-theorised topic. Additionally, practical considerations meant that other methodologies were not possible.

I interviewed 18 students about their housing issues and found that data saturation occurred after about 15 interviews. The analysis of the interviews continued throughout the data collection phase in a circular fashion so that the findings from each interview contributed to

the next interview. This stage of the research included a thorough coding process as well as writing memos. While CGT is a grounded approach, it also allows for consideration of existing theories during the analysis. For this reason I supplemented my research by reading a wide range of social science literature from various disciplines such as sociology, geography, urban theory, housing studies and human services. Further reading of local grey literature allowed me to contextualise the participants' experiences. Notwithstanding the use of existing theories, the findings emerged from the data and are therefore grounded in the experiences of the participants. Situational maps assisted in the analysis of the data, in particular towards the end of the data collection period.

The findings that emerged were presented as three core categories. The mobility of the participants included relocating house, and equally important was how they perceived their relocation. The reasons for mobility included tenancy agreements ending and moving for EQC repairs. In response to relocation the students sought stability through strategies such as buying a house or making plans for moving out of Christchurch.

The second category was recreating security. Security was fostered through communal sleeping arrangements while the aftershocks from the large earthquakes continued. Regaining faith in the structural integrity of one's house was also important. This included making minor adjustments to doors, gaining knowledgeable reassurance about internal surface damage and cleaning up the earthquake damage. Other strategies performed by the participants to recreate their security were through their daily routines. To mitigate the effects of damaged housing, techniques were used to keep their home warm and dry.

The third category highlighted the loss of material possession and the loss of political voice. The loss of belongings largely occurred as a result of the earthquake. Some participants who lived in the red-zone were unable to recover their belongings for months, whereas others lost them permanently. Loss was also evident in how the rebuild of the central city was perceived. The marginalisation and silencing experienced affected the liveability of Christchurch.

The findings from the interviews of the participants were then theorised to explain how housing insecurity was experienced. Next I will review my interpretation of the findings to show how the theory contributes to academia.

Theoretical contribution

This thesis contributes to existing sociological knowledge, as well as the fields of housing studies and disaster studies of housing. Since a constructivist grounded theory approach was employed the findings are grounded and represent my interpretation of the participants' experiences. The findings are specific to the post-earthquake environment within which the research took place, therefore, the findings are not generalisable but they can nevertheless further a theoretical understanding of post-disaster housing issues.

By drawing on Kaufmann's concept of motility I was able to utilise theory which had been originally formulated to explore transport studies. Kaufmann's theoretical ideas allowed me, as the researcher, to look through the mobility lens so that the experiences of the participants could be understood and explained. I believe that the concept of motility has assisted this research in the way that Kaufmann suggests. Motility helped to explain how and why the participants sought and found secure housing.

This study also incorporated Bourdieu's interpretation of capital, as well as Zimmermann's reinterpretation of Sen's capability approach. Both of these theories complimented motility so that the housing insecurity issues that the participants discussed could be theorised. The end product of this research synthesises the housing insecurity experiences of the participants' with Bourdieu's and Kaufmann's theories to create the following theory:

An individual's ability to control their mobility defines their experience of housing insecurity. As a way of negotiating their insecurity the participants engaged in a process of furthering their security capital which increased their motility.

This sociological theory coalesces the academic fields of housing, disaster and mobility studies to better understand the experiences of student housing in Christchurch following the 2011 earthquakes. The theory emerged from the data and is based on the participants' experiences, however, given the ontological and epistemological assumptions of the constructivist methodology, I acknowledge my influence as the researcher on the construction of this knowledge.

Research limitations

The limitations of this research are an inevitable outcome of the ontological assumptions adopted for this research. The narrow scope of the research—students in a post-disaster environment—was a pragmatic decision which means making comparisons can be problematic. This is not to say that the findings and theory are inapplicable to other contexts because like all qualitative research this work adds to the plethora of existing literature. With this in mind it is worth considering the claim from Payne and Williams (2005) who suggested that qualitative research can be considered generalisable to a degree depending on the context and the research process. For example, the selection process of this research ensured the participants came from different backgrounds and had contrasting experiences. This helped to give the research a general applicability if it is drawn upon for other research. The findings offer insights that can be further explored for their applicability in other situations where housing insecurity occurs in a post-disaster context.

The procedural limitations of a Masters research project limited both time and resources. These limitations shaped the research into its final scope of *students* and *housing insecurity*. The possibility of wider and more substantial research could have included the general public instead of only students, which would probably have allowed for a broader range of housing insecurities to have been investigated. For example, street homelessness or sleeping in vehicles. I was also unable to explore the housing insecurity of those students who had moved away from Christchurch throughout the three years after the earthquake; perhaps these potential participants had vastly different experiences to those who participated in this research.

Potential further research

This research focused on students' experiences of post-disaster housing, therefore, the findings are specific and further research could be extended into the general population. Viewing the students' housing through a mobility lens highlighted the importance of motility in a post-earthquake context and how mobility related to housing security. Perhaps the opportunity exists for further research into how individuals manage the threat of forced

mobility in a post-disaster context. Or, looking at specific age cohorts would very likely result in different findings. For example, the experiences of parents in this study differed quite markedly from those without children. Therefore research into the housing experiences of parents, or perhaps the elderly could be fruitful.

Housing insecurity was experienced differently by students who were also parents, therefore, further research into post-disaster housing of parents may be of value. The effect of having children to care for limited housing options because of schooling needs and concern over the way in which children are attached to their surroundings. Future research into post-disaster housing could explore in more detail the experiences of parents with children who are forced to relocate regularly. This would be useful in understanding the pressures faced by a specific group in society.

Policy and advocacy

The experiences described by the participants highlighted some general concerns that may be relevant to advocacy groups and social service providers. A pertinent issue raised by the participants was the need to reduce housing instability, particularly for those who are living in rented accommodation.

Housing insecurity and a loss of control of one's mobility could be helped by focusing on three key points; tenancy agreements, housing stock, and rental prices. Since housing insecurity increases near the end of tenancy agreements long term tenancies are preferable. The limited housing options and high prices could be helped by an increase of social housing so that there are more options available beyond private landlords. Introducing income related rents would mean that those on low incomes could afford reasonable housing, as well as the costs associated with heating their home.

The need to improve the quality of housing in New Zealand has been covered in literature from chapter two, however, the findings from this research have reinforced the impact of housing quality. Consequently, I feel it is important to reiterate some policy recommendations from Howden-Chapman et al. (2013) who suggested a housing warrant of fitness (WOF) to address the poor quality of rental houses, in particular those proved through

the market. Their suggestions echo many of the policy recommendations from an expert advisory group (EAG) who proposed a housing WOF, increased social housing with subsidised rates and active tenancy management, a more thorough housing subsidy, income related rents and additional help for low income households to become homeowners (Office of the Children's Commissioner, 2012). EAG's report was written in response to child poverty, however, their recommendations address the root cause of New Zealand's housing problem. Their suggested policies are applicable to post-earthquake Christchurch because the housing situation is an outcome of pre-earthquake housing, as much it is a result of the earthquakes.

Advocacy groups and housing providers should be aware of how the liveability of a home depends on a number of factors beyond the property's boundary. Good communication with landlords fosters a sense of housing security for tenants so housing providers can empower their tenants by keeping regular contact and ensuring requests are responded to appropriately.

It is also important for housing providers and advocacy groups to understand how a tenant's connection to their neighbourhood, community and city can improve their housing experience. Housing security is greatly affected by the liveability of the neighbourhood, suburb and city that the house is situated in. Support from social networks helps to foster an individual's housing security, however, social networks can also be negative and create instability. The effect of continued insecure housing can result in a feeling of disillusionment towards one's neighbourhood and city. Because of this there may be an unwillingness to commit time and energy into the future of the city, thus reinforcing instability.

Conclusion

This concluding chapter has provided a brief overview of the thesis. The theory that was generated in this research shows the importance of having control over mobility in a post-disaster environment. In order to foster housing security the students furthered their security capital through motility. The findings of this thesis have built on the existing research and contributed to the fields of sociology, housing studies and disaster studies. It is hoped that further research into post-disaster housing will find this theory useful and build upon it.

Appendices

Appendix I: Poster



Post-quake Housing Insecurity?

Have you had to relocate at short notice, accepted sub-standard housing, high rental prices, or live in a location you otherwise wouldn't?

Or have you lived, or are currently living, in a tent, caravan, garage, temporary hostel, or have you couch-surfed as a result of the earthquakes?

Participants are required for research into how students have negotiated housing insecurity following the earthquakes. This is a chance to share your experience and be part of a project which will explore how University of Canterbury students have been affected by housing changes in a post-disaster context.

Participants will be required to partake in a conversational style interview to discuss their experiences. This project has been cleared by ethics and your identity will remain strictly confidential. You get to eat chocolate too!

Please contact me for more information

Housing Insecurity Research josiab.banbury@pg.canterbury.ac.nz Ph:0273568065
Housing Insecurity Research josiab.banbury@pg.canterbury.ac.nz Ph:0273568065
Housing Insecurity Research josiab.banbury@pg.canterbury.ac.nz Ph:0273568065
Housing Insecurity Research josiab.banbury@pg.canterbury.ac.nz Ph:0273568065
Housing Insecurity Research josiab.banbury@pg.canterbury.ac.nz Ph:0273568065
Housing Insecurity Research josiab.banbury@pg.canterbury.ac.nz Ph:0273568065
Housing Insecurity Research josiab.banbury@pg.canterbury.ac.nz Ph:0273568065

Appendix II: Consent form



Josiah Banbury
Email: josiah.banbury@pg.canterbury.ac.nz
Phone: 0273568065

CONSENT FORM

University Students' Experiences of Housing Insecurity Following the Canterbury Earthquakes

I have read and understood the information sheet describing the above-named research. I have also been given the opportunity to ask questions.

I understand what is required of me as a participant and that I may withdraw from the project up until one month after the interview without penalty.

I am aware that the interview will be audio-recorded.

I understand that my identity will be kept confidential and pseudonyms will be used to maintain anonymity in published reports. If photos have been offered to the researcher, I understand that they may be used in the project.

I understand that all data collected for this research will be stored in locked facilities, within a locked room, and/or password protected if in electronic form. All data will be destroyed after five years.

I understand that I will receive a transcript of the interview and will be given two weeks to request changes.

I am aware that I can contact Josiah (the researcher), Dr Ruth McManus (supervisor), or Dr Kate van Heugten (co-supervisor) for further information.

This research has been reviewed and approved by the University of Canterbury Human Ethics Committee. As a result, participants can contact the Chair, University of Canterbury Human Ethics Committee if they have any complaints.

Name:.....

Signature:.....

Date:.....

Email address:.....



Information Sheet

University Students' Experiences of Housing Insecurity Following the Canterbury Earthquakes

You are invited to participate in a research project which will consider the issue of housing insecurity following the Christchurch earthquakes. The aim of this project is to explore how housing insecurity has affected you and how you have negotiated changes to your living arrangements. Limited research exists on housing insecurity in New Zealand and this piece of research will allow you to share your experience of the unique circumstances currently being experienced in Christchurch.

As a participant in this project you will take part in an audio-taped interview approximately 60 to 90 minutes in length. The interview will be semi-structured with general questions on how you experienced housing insecurity. Participation is entirely voluntary, so you have the right to withdraw from the project up to one month after your interview (after this period, extracting your data from the research becomes problematic). If you do decide to withdraw, there will be no penalty and all information gathered will be destroyed.

You will not be identified in the research report. Pseudonyms will be used and all identifying information will be removed. To safeguard your privacy, all information collected will be stored securely. This study may result in articles or additional publications. At the conclusion of the project, you will be offered a summary of the research.

This project is being carried out as part of an MA Sociology thesis at the University of Canterbury under the supervision of Dr Ruth McManus and Dr Kate van Heugten (for contact details see below). The University of Canterbury Human Ethics Committee has reviewed and approved this project.

Contact: Josiah Banbury,
Ph: 027 356 8065
MA Student, School of Social and Political Sciences,
Sociology Programme,
University of Canterbury.
josiah.banbury@pg.canterbury.ac.nz

Associate supervisor: Dr Kate van Heugten
kate.vanheugten@canterbury.ac.nz
Ph: +63 3 364 2513 ext 6513
Human Services and Social Work Department,
School of Social and Political Sciences,
University of Canterbury,
Private Bag 4800, Chch, NZ.

Senior supervisor: Dr Ruth McManus
ruth.mcmanus@canterbury.ac.nz
Ph: +64 3 364 2987 ext 3046
School of Social and Political Sciences,
University of Canterbury,
Private Bag 4800, Chch, NZ.

UC Human Ethics Committee:
human-ethics@canterbury.ac.nz
Okeover House, University of Canterbury.
Ph: +64 3 3642987

If you require support services following participation, please contact: UC Accommodation Liaison Advisers (accommodation@canterbury.ac.nz); UC Student Support (stephen.harte@canterbury.ac.nz); UC Health Centre (Ph: +64 3 3642402); Ministry of Social Development (<http://www.msd.govt.nz/emergency/chch-earthquakes-support-assistance.html>).

References

- Aldrich, DP 2012, *Building resilience: Social capital in post-disaster recovery*, University of Chicago Press, London.
- Allen, BL 2011, 'Laboratorization and the "Green" rebuilding of New Orleans's lower ninth ward', in C Johnson (ed.), *The neoliberal deluge: Hurricane Katrina, late capitalism, and the remaking of New Orleans* University of Minnesota Press, Minneapolis, MN., pp. 187-244.
- Arena, J 2011, 'Black and white, unite and fight? Identity politics and New Orleans's post-Katrina public housing movement', in C Johnson (ed.), *The Neoliberal Deluge: Hurricane Katrina, late capitalism, and the remaking of New Orleans* University of Minnesota Press, Minneapolis, MN, pp. 152-186.
- Arena, J 2012, *Driven from New Orleans: How nonprofits betray public housing and promote privatization*, University of Minnesota Press, Minneapolis.
- Bankoff, G 2001, 'Rendering the world unsafe: 'Vulnerability' as Western discourse', *Disasters*, vol. 25, no. 1, pp. 19-35.
- Bankoff, G 2007, 'The historical geography of disaster: 'Vulnerability' and 'local knowledge' in Western discourse', in G Bankoff, G Frerks & D Hilhorst (eds), *Mapping vulnerability: disasters, development & people*, Earthscan, London, pp. 25-36.
- Bannister, S & Gledhill, K 2012, 'Evolution of the 2010-2012 Canterbury Earthquake sequence', *New Zealand Journal of Geology and Geophysics*, vol. 55, no. 3, pp. 295-304.
- Birkman, J 2006, 'Measuring vulnerability to promote disaster-resilient societies: Conceptual frameworks and definitions', in J Birkman (ed.), *Measuring Vulnerability to Natural Hazards*, United Nations Press, Tokyo, pp. 9-54.
- Blaikie, P, Cannon, T, Davis, I & Wisner, B 2004, *At risk: Natural hazards, people's vulnerability and disasters*, 2nd edn, Routledge, London.
- Bolin, R & Stanford, L 1998, 'The Northridge Earthquake: Community-based approaches to unmet recovery needs', *Disasters*, vol. 22, no. 1, pp. 21-38.
- Bolin, R & Stanford, L 1998a, *The Northridge Earthquake: vulnerability and disaster*, Routledge, London.
- Bourdieu, P 1977, *Outline of a theory of practice*, Cambridge University Press, Cambridge.

- Bourdieu, P 1984, *Distinction: A social critique of the judgement of taste*, Routledge, London.
- Bourdieu, P 2002, 'The forms of capital', in NW Biggart (ed.), *Readings in economic sociology*, Blackwell, Oxford, pp. 280-291.
- Brasington, D, M 2014, 'Housing choice, residential mobility, and hedonic approaches', in MM Fischer & P Nijkamp (eds), *Handbook of Regional Science*, Springer Berlin Heidelberg, Berlin, pp. 147-165.
- Broadhead, RS & Rist, RC 1976, 'Gatekeepers and the social control of social research', *Social Problems*, vol. 23, no. 3, pp. 325-336.
- Brownlee, G 2011, *New authority will deliver for Canterbury*. Retrieved August 23, 2013, from <http://www.beehive.govt.nz/release/new-authority-will-deliver-canterbury>
- Brownlee, G 2012a, *More Beds for Workers Made Easier*. Retrieved July 15, 2013, from <http://www.beehive.govt.nz/release/more-beds-workers-made-easier>
- Brownlee, G 2012b, *New unit for the rebuild of central Christchurch*. Retrieved August 12, 2013, from <http://www.beehive.govt.nz/release/new-unit-rebuild-central-christchurch>
- Bryman, A 2004, *Social research methods*, 2nd edn, Oxford University Press, Oxford.
- Butler, S, Williams, M, Tukuitonga, C & Paterson, J 2003, 'Problems with damp and cold housing among Pacific families in New Zealand', *New Zealand Medical Journal*, vol. 116, no. 1177, p. U494.
- Carville, O 2012, *'Pontius' Brownlee sees no rental housing crisis*. Retrieved June 13, 2013, from <http://www.stuff.co.nz/the-press/news/christchurch-earthquake-2011/6741805/Pontius-Brownlee-sees-no-rental-housing-crisis>
- Carville, O & Small, V 2012, *Hardship but no housing crisis, says Key*. Retrieved July 24, 2013, from <http://www.stuff.co.nz/the-press/news/christchurch-earthquake-2011/7190205/Hardship-but-no-housing-crisis-says-Key>
- CCC 2011, *Draft central city recovery plan*. Retrieved September 15, 2013, from <http://resources.ccc.govt.nz/files/CentralCityDecember2011/FinalDraftPlan/FinaldraftCentralCityPlan.pdf>
- CERA 2012a, *Christchurch central recovery plan*. Retrieved September 22, 2013, from <https://ccdu.govt.nz/sites/default/files/documents/christchurch-central-recovery-plan-march-2014-spreads-version.pdf>

- CERA 2012b, *Important settlement milestone reached*. Retrieved September 27, 2013, from <http://cera.govt.nz/news/2012/important-settlement-milestone-reached-9-october-2012>
- CERA 2012c, 'Recovery Strategy for Greater Christchurch Mahere Haumanutanga o Waitaha'. Canterbury Earthquake Recovery Authority, Christchurch.
- CERA 2014a, *Over 5000 red zoned houses now cleared*. Retrieved December 3, 2014, from <http://cera.govt.nz/news/2014/over-5000-red-zoned-houses-now-cleared-14-august-2014>
- CERA 2014b, *Wellbeing Survey April 2014*. Retrieved December 6, 2014, from <http://cera.govt.nz/sites/default/files/common/cera-wellbeing-survey-april-2014-report.pdf>
- Charmaz, K 2000, 'Grounded theory: Objectivist and constructivist methods', in NK Denzin & YS Lincoln (eds), *Handbook of qualitative research*, 2nd edn, Sage, Thousand Oaks, CA, pp. 509-535.
- Charmaz, K 2003, 'Grounded theory', in JA Smith (ed.), *Qualitative psychology: A practical guide to research methods*, Sage, London, pp. 81-110.
- Charmaz, K 2006, *Constructing grounded theory: A practical guide through qualitative analysis*, Sage, London.
- Charmaz, K 2011, 'Grounded theory methods in social justice', in NK Denzin & YS Lincoln (eds), *The Sage handbook of qualitative research*, 4th edn, Sage, Thousand Oaks, CA, pp. 359-380.
- Clapham, D 2002, 'Housing pathways: A post modern analytical framework', *Housing, Theory and Society*, vol. 19, no. 2, pp. 57-68.
- Clark, WAV & Davies Withers, S 2007, 'Family migration and mobility sequences in the United States: Spatial mobility in the context of the life course', *Demographic Research*, vol. S6, no. 20, pp. 591-622.
- Clarke, A 2003, 'Situational analyses: Grounded theory mapping after the postmodern turn', *Symbolic Interaction*, vol. 26, no. 4, pp. 553-576.
- Clarke, A 2005, *Situational analysis: Grounded theory after the postmodern turn*, Sage, Thousand Oaks, CA.
- Coleman, JS 1990, *Foundations of social theory*, Belknap Press, Cambridge MA.
- Cresswell, T 2002, 'Introduction: Theorizing place', in G Verstraet & T Cresswell (eds), *Mobilizing place, placing mobility*, Rodopi, Amsterdam, pp. 11-32.

- Creswell, JW 2007, *Qualitative inquiry & research design: Choosing among five approaches*, 2nd edn, Sage, Thousand Oaks, CA.
- Cretney, R 2014, 'Resilience for whom? Emerging critical geographies of socio-ecological resilience', *Geography Compass*, vol. 8, no. 9, pp. 627-640.
- Crowley, K & Elliott, JR 2012, 'Earthquake disasters and resilience in the global North: Lessons from New Zealand and Japan', *The Geographical Journal*, vol. 178, no. 3, pp. 208-215.
- Das, D, Baker, M, Venugopal, K & McAllister, S 2006, 'Why the tuberculosis incidence rate is not falling in New Zealand', *Journal of the New Zealand Medical Association*, vol. 119, no. 1243, pp. 32-41.
- Denzin, NK & Lincoln, YS 2011, 'Introduction: The discipline and practice of qualitative research', in NK Denzin & YS Lincoln (eds), *The Sage handbook of qualitative research*, 4th edn, Sage, Thousand Oaks, CA, pp. 1-19.
- Dey, I 2004, *Grounded theory*, Sage, London.
- Dorahy, MJ & Kannis-Dymand, L 2012, 'Psychological distress following the 2010 Christchurch Earthquake: A community assessment of two differentially affected suburbs', *Journal of Loss and Trauma*, vol. 17, no. 3, pp. 203-217.
- Dupuis, A & Thorns, DC 1998, 'Home, home ownership and the search for ontological security', *The Sociological Review*, vol. 46, no. 1, pp. 24-47.
- Edwards, FL 2013, 'All hazards, whole community: Creating resiliency', in N Kapucu, CV Hawkins & FI Rivera (eds), *Disaster resiliency: Interdisciplinary perspectives*, Routledge, New York, pp. 21-47.
- Egeland, B, Carlson, E & Sroufe, LA 1993, 'Resilience as process', *Development and Psychopathology*, vol. 5, no. 04, pp. 517-528.
- Erikson, KT 1976, *Everything in its path*, Simon & Schuster, New York.
- Evans, JP 2011, 'Resilience, ecology and adaptation in the experimental city', *Transactions of the Institute of British Geographers*, vol. 36, no. 2, pp. 223-237.
- Ezzy, D 2002, *Qualitative analysis: Practice and innovation*, Allen & Unwin, St Leonards, N.S.W.
- Field, J 2003, *Social capital*, Routledge, New York.

- Fine, B 2010, *Theories of social capital: Researchers behaving badly*, Pluto Press, New York.
- Forrest, R & Murie, A 1990, 'A dissatisfied State? Consumer preferences and council housing in Britain', *Urban Studies*, vol. 27, no. 5, pp. 617-635.
- Fothergill, A 1996, 'Gender, risk, and disaster', *International Journal of Mass Emergencies and Disasters*, vol. 14, no. 1, pp. 33-56.
- Fritz, CE 1961, 'Disasters', in RK Merton & RA Nisbet (eds), *Contemporary social problems*, Harcourt Brace Jovanovich, New York, pp. 651-694.
- Fritz, CE & Marks, ES 1954, 'The NORC studies of human behavior in disaster', *Journal of Social Issues*, vol. 10, no. 3, pp. 26-41.
- Gair, S 2012, 'Feeling their stories: Contemplating empathy, insider/outsider positionings, and enriching qualitative research', *Qualitative Health Research*, vol. 22, no. 1, pp. 134-143.
- Game, A & Metcalfe, AW 1996, *Passionate sociology*, Sage, London.
- Ganapati, NE 2013, 'Downsides of social capital for women during disaster recovery: Toward a more critical approach', *Administration & Society*, vol. 45, no. 1, pp. 72-96.
- Geist, C & McManus, PA 2008, 'Geographical mobility over the life course: Motivations and implications', *Population, Space and Place*, vol. 14, no. 4, pp. 283-303.
- GeoNet 2014, *Aftershocks: How many have there been*. Retrieved September 23, 2014, from <http://info.geonet.org.nz/display/home/Canterbury+Aftershocks>
- Giddens, A 1991, *Modernity and self-identity: Self and society in the late modern age*, Polity Press, Cambridge.
- Gill, DA 2007, 'Secondary trauma or secondary disaster: Insights from Hurricane Katrina', *Sociological Spectrum*, vol. 27, no. 6, pp. 613-632.
- Glaser, BG 1978, *Theoretical sensitivity*, Sociology Press, Mill Valley, CA.
- Glaser, BG 2002, 'Conceptualization: On theory and theorizing using grounded theory', *The International Journal of Qualitative Methods*, vol. 1, no. 2, pp. 1-31.
- Glaser, BG & Strauss, AL 1967, *The discovery of grounded theory: Strategies for qualitative research*, Weidenfeld and Nicolson, London.

- Greene, RR & Greene, DG 2009, 'Resilience in the face of disasters: Bridging micro- and macro-perspectives', *Journal of Human Behavior in the Social Environment*, vol. 19, no. 8, pp. 1010-1024.
- Guba, EG & Lincoln, YS 2005, 'Paradigmatic controversies, contradictions, and emerging confluences', in NK Denzin & YS Lincoln (eds), *The Sage handbook of qualitative research*, 3rd edn, Sage, Thousand Oaks, CA, pp. 191-215.
- Haines, VA, Hurlbert, JS & Beggs, JJ 1996, 'Exploring the determinants of support provision: Provider characteristics, personal networks, community contexts, and support following life events', *Journal of Health and Social Behavior*, vol. 37, no. 3, pp. 252-264.
- Hamnett, C 1999, *Winners and losers*, UCL Press, London.
- Harper, D 2002, 'Talking about pictures: A case for photo elicitation', *Visual Studies*, vol. 17, no. 1, pp. 13-26.
- Hayward, BM 2013, 'Rethinking resilience: Reflections on the earthquakes in Christchurch, New Zealand, 2010 and 2011', *Ecology and Society*, vol. 18, no. 4
- Hiscock, R, Kearns, A, MacIntyre, S & Ellaway, A 2001, 'Ontological security and psycho-social benefits from the home: Qualitative evidence on issues of tenure', *Housing, Theory and Society*, vol. 18, no. 1, pp. 50-66.
- Holling, CS 1973, 'Resilience and stability of Ecological Systems', *Annual Review of Ecology and Systematics*, vol. 4, pp. 1-23.
- Howden-Chapman, P, Baker, M & Bierre, S 2013, 'The houses children live in: Policies to improve housing quality', *Policy Quarterly*, vol. 9, no. 2, pp. 35-39.
- Howden-Chapman, P, Saville-Smith, K, Crane, J & Wilson, N 2005, 'Risk factors for mold in housing: A national survey', *Indoor Air*, vol. 15, no. 6, pp. 469-476.
- Howden-Chapman, P, Viggers, H, Chapman, R, O'Sullivan, K, Telfar Barnard, L & Lloyd, B 2012, 'Tackling cold housing and fuel poverty in New Zealand: A review of policies, research, and health impacts', *Energy Policy*, vol. 49, no. 0, pp. 134-142.
- Hurlbert, JS, Haines, VA & Beggs, JJ 2000, 'Core networks and tie activation: What kinds of routine networks allocate resources in nonroutine situations?', *American Sociological Review*, vol. 65, no. 4, pp. 598-618.
- Johnson, C (ed.) 2011, *The neoliberal deluge: Hurricane Katrina, neoliberalism, and the remaking of New Orleans*, University of Minnesota Press, Minneapolis, MN.

- Johnson, C 2011a, 'Introduction: The neoliberal deluge', in C Johnson (ed.), *The neoliberal deluge: Hurricane Katrina, neoliberalism, and the remaking of New Orleans*, University of Minnesota Press, Minneapolis, MN, pp. xvii-xlix.
- Johnson, J 2001, 'In-depth interviewing', in J Holstei & J Gubrium (eds), *Handbook of interview research: Context and method*, Sage, London, pp. 103-120.
- Kaufmann, V 2002, *Re-thinking mobility: Contemporary sociology*, Ashgate, Aldershot.
- Kaufmann, V, Bergman, MM & Joye, D 2004, 'Motility: Mobility as capital', *International Journal of Urban and Regional Research*, vol. 28, no. 4, pp. 745-756.
- Kim, JH 2014, 'Residential and job mobility: Interregional variation and their interplay in US metropolitan areas', *Urban Studies*, vol. 51, no. 13, pp. 2863-2879.
- Kreps, GA 1995, 'Disaster as systemic event and social catalyst: A clarification of subject matter', *International Journal of Mass Emergencies and Disasters*, vol. 13, no. 3, pp. 255-284.
- Lincoln, YS, Denzin, NK & Guba, EG 2011, 'Paradigmatic controversies, contradictions, and emerging confluences, revisited', in NK Denzin & YS Lincoln (eds), *The Sage handbook of qualitative research*, 4th edn, Sage, Thousand Oaks, CA, pp. 97-128.
- Lofland, J & Lofland, LH 1995, *Analyzing social settings: A guide to qualitative observation and analysis*, 3rd edn, Wadsworth, Belmont, CA.
- Mackay, M 2011, *DIY (Do-It-Yourself) home improvement in New Zealand*, Ph.D Thesis, Lincoln University, Christchurch.
- MacKinnon, D & Derickson, KD 2013, 'From resilience to resourcefulness: A critique of resilience policy and activism', *Progress in Human Geography*, vol. 37, no. 2, pp. 253-270.
- Maly, E & Shiozaki, Y 2012, 'Towards a policy that supports people-centered housing recovery—learning from housing reconstruction after the Hanshin-Awaji Earthquake in Kobe, Japan', *International Journal of Disaster Risk Science*, vol. 3, no. 1, pp. 56-65.
- Manyena, SB 2006, 'The concept of resilience revisited', *Disasters*, vol. 30, no. 4, pp. 434-450.
- McEntire, D 2012, 'Understanding and reducing vulnerability: From the approach of liabilities and capabilities', *Disaster Prevention and Management*, vol. 20, no. 3, pp. 294-313.
- Mileti, DS & Passerini, E 1996, 'A social explanation of urban relocation after earthquakes', *International Journal of Mass Emergencies and Disasters*, vol. 14, no. 1, pp. 97-110.

- Miller, LM 2012, 'Controlling disasters: Recognising latent goals after Hurricane Katrina', *Disasters*, vol. 36, no. 1, pp. 122-139.
- Mills, J, Bonner, A & Francis, K 2006, 'The development of constructivist grounded theory', *International Journal of Qualitative Methods*, vol. 5, no. 1, pp. 1-10.
- Mills, J, Bonner, A & Francis, K 2006a, 'Adopting a constructivist approach to grounded theory: Implications for research design', *International Journal of Nursing Practice*, vol. 12, pp. 8-13.
- Morrow, BH & Enarson, E 1996, 'Hurricane Andrew through women's eyes: Issues and recommendations', *International Journal of Mass Emergencies and Disasters*, vol. 14, no. 1, pp. 5-22.
- Murphy, C & Gardoni, P 2010, 'Assessing capability instead of achieved functionings in risk analysis', *Journal of Risk Research*, vol. 13, no. 2, pp. 137-147.
- Murphy, E & Dingwall, R 2003, *Qualitative methods and health policy research*, Aldine de Gruyter, New York.
- New Zealand Government 2010, 'Canterbury Earthquake Response and Recovery Act 2010'. New Zealand Parliament, Wellington.
- New Zealand Police 2012, *List of Deceased*. Retrieved September 12, 2014, from <http://www.police.govt.nz/major-events/previous-major-events/christchurch-earthquake/list-deceased>
- Newell, J, Beaven, S & Johnston, D 2012, *Population movements following the 2010-2011 Canterbury Earthquakes: Summary of research workshops November 2011 and current evidence*, GNS Miscellaneous Series
- Nigg, JM, Barnshaw, J & Torres, MR 2006, 'Hurricane Katrina and the flooding of New Orleans: Emergent issues in sheltering and temporary housing', *Annals of the American Academy of Political and Social Science*, vol. 604, pp. 113-128.
- Norris, F, Stevens, S, Pfefferbaum, B, Wyche, K & Pfefferbaum, R 2008, 'Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness', *American Journal of Community Psychology*, vol. 41, no. 1-2, pp. 127-150.
- Office of the Children's Commissioner 2012, *Solutions to child poverty: Evidence for action*. Retrieved October 23, 2014, from <http://www.occ.org.nz/assets/Uploads/EAG/Final-report/Final-report-Solutions-to-child-poverty-evidence-for-action.pdf>
- Oliver-Smith, A 1982, 'Here there is life: The social and cultural dynamics of successful resistance to resettlement in post-disaster Peru', in A Hansen. & A Oliver-Smith (eds), *Involuntary*

migration and resettlement: The problems and responses of dislocated people, Westview, Boulder, CO., pp. 85-103.

Oliver-Smith, A 2004, 'Theorizing vulnerability in a globalised world: A political ecological perspective', in G Bankoff, Frerks, G., & Hilhorst, D. (ed.), *Mapping vulnerability: Disasters, development and people*, Sterling, London, pp. 10-24.

Paton, D, Smith, L & Violanti, J 2000, 'Disaster response: Risk, vulnerability and resilience', *Disaster Prevention and Management*, vol. 9, no. 3, pp. 173-179.

Payne, G & Williams, M 2005, 'Generalization in Qualitative Research', *Sociology*, vol. 39, no. 2, pp. 295-314.

Peacock, WG, Gladwin, H & Morrow, BH (eds.) 1997, *Hurricane Andrew: Ethnicity, gender and the sociology of disasters*, Routledge, New York.

Putnam, RD 1995, 'Bowling alone: America's declining social capital', *Journal of Democracy*, vol. 6, no. 1, pp. 65-78.

Putnam, RD 2000, *Bowling alone: The collapse and revival of American community*, Simon & Schuster, New York.

Quarantelli, EL 1982, 'General and particular observations on sheltering and housing in American disasters', *Disasters*, vol. 6, no. 4, pp. 277-281.

Quarantelli, EL 1982a, *Sheltering and housing after major community disasters: Case studies and general observations*. Retrieved July 22, 2013, from <http://udspace.udel.edu/handle/19716/1132>

Quarantelli, EL 1991, *Patterns of sheltering and housing in US disasters*. Retrieved July 24, 2013, from <http://dspace.udel.edu/bitstream/handle/19716/542/PP170.pdf>

Quarantelli, EL 2001, 'Statistical and conceptual problems in the study of disasters', *Disaster Prevention and Management*, vol. 10, no. 5, pp. 325-338.

Quarantelli, EL 2008, 'Conventional beliefs and counterintuitive realities', *Social Research*, vol. 75, no. 3, pp. 873-904.

Reich, JW 2006, 'Three psychological principles of resilience in natural disasters', *Disaster Prevention and Management*, vol. 15, no. 1, pp. 793-799.

- Reid, MK 2011, *A disaster on top of a disaster: How gender, race, and class shaped the housing experiences of displaced Hurricane Katrina survivors*, Ph.D Thesis, University of Texas, Austin.
- Rossi, PH 1955, *Why families move: A study in the social psychology of urban residential mobility*, Free Press, Glencoe, IL.
- Russill, C & Lavin, C 2011, 'From tipping point to meta-crisis: Management, media and Hurricane Katrina', in C Johnson (ed.), *The neoliberal deluge: Hurricane Katrina, late capitalism, and the remaking of New Orleans* University of Minnesota Press, Minneapolis, MN., pp. 3-31.
- Samuels, A 2012, 'Moving from great love: Gendered mobilities in a post-tsunami relocation neighborhood in Aceh, Indonesia', *International Journal of Urban and Regional Research*, vol. 36, no. 4, pp. 742-756.
- Saunders, P 1989, 'The meaning of 'home' in contemporary English culture', *Housing Studies*, vol. 4, no. 3, pp. 177-192.
- Schwandt, TA 2000, 'Three epistemological stances for qualitative inquiry', in NK Denzin & YS Lincoln (eds), *Handbook of qualitative research*, 2nd edn, Sage, Thousand Oaks, CA, pp. 189-214.
- Sen, A 1993, 'Capability and well-being', in M Nussbaum & A Sen (eds), *The quality of life*, Oxford Clarendon Press, New York, pp. 30-53.
- Sen, A 1999, *Development as freedom*, Knopf, New York.
- Severinsen, CA 2010, *Marginally grounded: Camping ground residence in New Zealand*, Ph.D Thesis, University of Otago, Dunedin.
- Severinsen, CA & Howden-Chapman, P 2013, 'The problem and politics of temporary housing', *Housing, Theory and Society*, vol. 31, no. 2, pp. 125-147.
- Shaw, L & Brookes, B 1998, 'Constructing homes: Gender and advertising in "Home and Building," 1936-1970', *The New Zealand Journal of History*, vol. 33, no. 2, pp. 200-220.
- Sheller, M 2013, 'The islanding effect: Post-disaster mobility systems and humanitarian logistics in Haiti', *Cultural Geographies*, vol. 20, no. 2, pp. 185-204.
- Sheller, M 2014, 'The new mobilities paradigm for a live sociology', *Current Sociology*, vol. 62, no. 6, pp. 789-811.

- Sheller, M & Urry, J 2006, 'The new mobilities paradigm ', *Environment and Planning A*, vol. 38, no. 2, pp. 207-226.
- Shuttleworth, K 2012, *Christchurch has enough housing - Brownlee*. Retrieved April 22, 2013, from http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10812557
- Smith, BN & Thorns, DC 1980, 'Housing markets and sub-markets: An analysis of the role of financial institutions in the allocation of housing', *Journal of Sociology*, vol. 16, no. 1, pp. 4-13.
- Smith, DP & King, R 2012, 'Editorial introduction: Re-making migration theory', *Population, Space and Place*, vol. 18, no. 2, pp. 127-133.
- Spector, M & Kitsuse, JI 1977, *Constructing social problems*, Cummings, Menlo Park, CA.
- Strauss, A & Corbin, J 1990, *Basics of qualitative research: Grounded theory procedures and techniques*, Sage, Newbury Park, CA.
- Tierney, KJ 2007, 'From the margins to the mainstream? Disaster research at the crossroads', *Annual Review of Sociology*, vol. 33, pp. 503-525.
- Tolich, M & Davidson, C 2003, 'Collecting the data', in C Davidson & M Tolich (eds), *Social science research in New Zealand: Many paths to understanding*, 2nd edn, Pearson, Auckland, N.Z., pp. 121-153.
- Trujillo-Pagan, N 2011, 'Hazardous Constructions: Mexican immigrant masculinity and the rebuilding of New Orleans', in C Johnson (ed.), *The neoliberal deluge: Hurricane Katrina, late capitalism, and the remaking of New Orleans*, University of Minnesota Press, Minneapolis, MN., pp. 327-353.
- Urry, J 2000, *Sociology beyond societies: Mobilities for the twenty-first century*, Routledge, London.
- Wacquant, LD 1998, 'Negative social capital: State breakdown and social destitution in America's urban core', *Netherlands Journal of Housing and the Built Environment*, vol. 13, no. 1, pp. 25-40.
- Walker, J & Cooper, M 2011, 'Genealogies of resilience: From systems ecology to the political economy of crisis adaptation', *Security Dialogue*, vol. 42, no. 2, pp. 143-160.
- Walker, RJ 1992, 'Marae: A place to stand', in M King (ed.), *Te Ao Hurihuri: Aspects of Maoritanga*, Octopus Publishing Group, Auckland, pp. 15-27.

- Wells, FR & McCotter, RF 1978, 'An alternative to temporary disaster housing', *Housing Science*, vol. 2, no. 3, pp. 259-264.
- Welsh, M 2014, 'Resilience and responsibility: Governing uncertainty in a complex world', *The Geographical Journal*, vol. 180, no. 1, pp. 15-26.
- Whitehall, G & Johnson, C 2011, 'Making citizens in Magnaville: Katrina refugees and neoliberal self-governance', in C Johnson (ed.), *The neoliberal deluge: Hurricane Katrina, late capitalism, and the remaking of New Orleans*, University of Minnesota Press, Minneapolis, MN., pp. 60-84.
- Wilson, GA 2013, 'Community resilience, social memory and the post-2010 Christchurch (New Zealand) earthquakes', *Area*, vol. 45, no. 2, pp. 207-215.
- Winstanley, A, Thorns, DC & Perkins, HC 2002, 'Moving house, creating home: Exploring residential mobility', *Housing Studies*, vol. 17, no. 6, pp. 813-832.
- Winstanley, AS 2000, *Housing, home and women's identity*, Ph.D Thesis, University of Canterbury, Christchurch.
- Yelvington, KA 1997, 'Coping in a temporary way: The tent cities', in WG Peacock, BH Marrow & H Gladwin (eds), *Hurricane Andrew: Ethnicity, gender and the sociology of disasters*, Routledge, New York, pp. 92-115.
- Zimmermann, B 2006, 'Pragmatism and the capability approach: Challenges in social theory and empirical research', *European Journal of Social Theory*, vol. 9, no. 4, pp. 467-484.